



*LEADERSHIP EDUCATION & TRAINING*

*Foundations  
for Success  
&  
Wellness, Fitness,  
and First Aid*



*US Army Cadet Command - FT. Monroe, Virginia*

HEADQUARTERS, DEPARTMENT OF THE ARMY  
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# *Unit 3: Foundations for Success*



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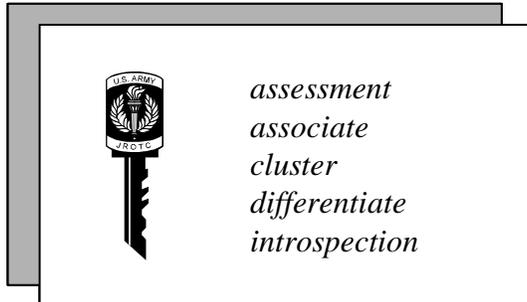
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## KNOW YOURSELF — SOCRATES

### LESSON 1: SELF-AWARENESS



#### INTRODUCTION

You may notice that some people behave or conduct themselves like you and others behave quite differently. For example, one person may be very quiet and doing contemplative while another may be the life of the party. Identifying your own preferences and the preferences of others can be an important building block in the foundation for your success. This knowledge can help you to understand situations as they unfold, improve your communication with others, and influence people and situations to get the results you desire.

#### NATURAL TENDENCIES

Everyone has preferences. How these are developed in each of us is a complex combination of things. Whether you are born with them or learn them — nature or nurture — can be an interesting question to explore. It is also interesting to think about how much preferences guide our behavior.

Behaviors that feel comfortable, that you do without thinking, that just seem natural, that you resort to when under stress, or that you simply identify as “the way you do things” can all be considered to be natural tendencies, or your personal preferences.

Being aware of personal preferences is an important step. Understanding others, being aware of what makes them tick, is another important interpersonal skill. You will learn more about that in the following lesson, *Appreciating Diversity through Winning Colors*.

#### LEARNING TO GROW

Self-awareness is just the beginning of a lifetime of growth and learning. Once you understand what you prefer, what is comfortable for you, it is much easier to branch out of your comfort zone to learn new behaviors. Having options, about how to behave, rather than just responding in whatever way feels natural, gives you the freedom to act in a sensible way, given the situation.

It is in these moments when you choose to be a bit uncomfortable, that you have the most potential to learn and grow. This is especially true if you select the areas for development, because you have a personal reason to do so. Motivation is a powerful influence on our success.



#### THE PROCESS OF SELF-DISCOVERY

How do you discover more about your own natural tendencies, or preferences? Here

are some ways you can enhance your self-knowledge:

- Introspection
- Observation
- Feedback (giving and receiving)
- Assessment Tools

### *INTROSPECTION*

You can pay attention and take note of your own experiences, actions, and reactions. Your own observations are invaluable sources of information about who you are and what makes you tick. Paying attention to how you feel inside while you participate in a variety of activities can give you some insight into your own behavioral preferences.

- Do you feel happier when working in a group, or alone?
- Do you feel satisfaction when you accomplish a difficult task?
- Is it easy or difficult for you to tell others what to do?

Your body language can also offer helpful clues. Paying attention to what is going on when you start to feel bored and tired — or lively and interested is an indicator. If your body is responding positively to the situation, it is likely there are elements there that agree with your personal preferences.

### *OBSERVATION*

In addition to what you see in yourself, the observations of others can also be helpful. Sometimes others see behaviors in us that we don't see, especially when we are too involved in activities to pay attention.

There are several key concepts to keep in mind if observation is to be a truly valuable self-discovery process.

### **Situation — What is going on?**

In terms of the situation, get a sense of the environment in which a behavior occurred. What are the significant factors? Who is involved? This context information offers additional perspective about the behavior.

### **Specific Behavior — What happened?**

For an observation to offer objective information rather than subjective, or merely an opinion, it needs to be specific. Vague comments are not as helpful as a concrete example.

Since behavior arises from complex factors, this protects us from being offensive or narrow in our interpretation, and allows for the processes of communicating our thoughts and asking questions to understand even more about others and ourselves. Jumping to conclusions often leads to errors or an incomplete picture.

### **Impact — What is the result?**

The impact also needs to be described in concrete terms when making an observation. Some results that could be observed include:

- Change in body language
- Increased energy or animation
- Decreased energy or animation
- Focus changes

Including impacts observed in reaction to specific behavior gives people a lot of information about not only what they are

doing but how that influences people and situations.

### *GIVING AND RECEIVING FEEDBACK*

Sharing observations with others is a responsibility and a privilege. This kind of information can be given in a helpful or a harmful way. Sharing an observation is an interpretation of reality. This is true whether you are observing your own behavior or that of others. So, be kind — and real — to yourself and to others when sharing your observations.

Feedback from others is simply their impression or opinion, particularly when a belief or value judgment is included. Try asking for specific examples when getting feedback from others, since observations are more reliable when they are based on fact. An opinion is more understandable when backed up with specific examples.

### *ASSESSMENT TOOLS*

Putting some structure around observations, inner thoughts, feedback and specific examples helps to make sense out of all this information. That's where **assessment** tools come in. They are valuable instruments that you can use in your quest for self-knowledge.

One set of extremely applicable tools is Winning Colors®. The Winning Colors® process supports self-discovery in a positive and affirming way. Winning Colors® is about what you can do, not what you can't.

You actually have more behavior options than you ever imagined, and the four categories make new behaviors easy to comprehend and put into practice.

Since people understand the categories and processes so quickly, you can expect to

make some interesting self-discoveries using the Winning Colors® assessment tool. Then, you can use the information to make a positive difference in your communication and in your life.

### **WINNING COLORS®**

Like other assessment tools, Winning Colors® groups human behavior into categories. Categories help us to understand complex information, by associating related data. To **associate** means to group things together when they have common characteristics. To **differentiate** means to make a distinction or state a difference between things so we can tell them apart.

### *PURPOSE AND PROCESS*

Winning Colors® is a present time behavior indicator. It can be used to:

- Improve understanding of how to cooperate and communicate with others
- Provide clues to motivation
- Clarify learning styles
- Offer insight to conflict resolution style
- Uncover essential aspects of communication

### *BEHAVIOR CLUSTERS*

Winning Colors® focuses on present behavior, a unique and very valuable characteristic of this tool. Four categories have been identified. Each of the four categories include behaviors that have enough characteristics in common to form a group (**cluster**).

Each category is labeled in a way that helps you remember the behaviors that go in that group.

***Builder Behaviors (brown, decide)***

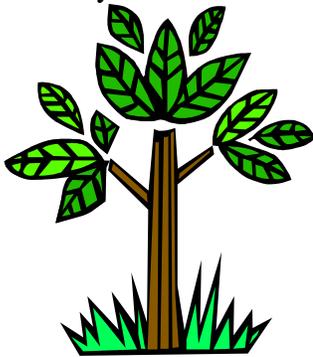
Do you have behaviors that tend toward taking over and being in charge? Do you like to know the “bottom-line” and be in control of people or things? Do you like giving orders and being “top dog?”



If you have developed these behaviors, you are a strong BUILDER. You might use the color BROWN, or compare these behaviors to the brown of the earth, in order to describe this part of you.

***Planner Behaviors (green, think)***

Do you have behaviors that tend toward being quiet and contemplative? You like to devise and develop strategies. You act only after you have considered all the details, and you have many creative ideas.



If you have developed these behaviors, you are a strong PLANNER. You

might use the color GREEN, or compare these behaviors to the growing grass or leaves, in order to describe this part of you.

***Adventurer Behaviors (red, act)***

Do you have behaviors that tend towards action? You are always on the go. You like to be on stage and take risks and chances whenever possible. You act on the spur of the moment. You know what to do in an emergency before anyone else.



If you have developed these behaviors, you are a strong ADVENTURER. You might use the color RED, or compare these behaviors to fire, in order to describe this part of you.

***Relater Behaviors (blue, feel)***

Do you have behaviors that tend toward showing feelings? You like to share your feelings with others and have them share theirs with you. You enjoy talking a lot.



If you have developed these behaviors, you are a strong RELATER. You might use the color BLUE, or compare these behaviors to the wide expanse and depth of the ocean, in order to describe this part of you.

## **YOUR KEY TO SUCESSS**

The key to success is to be balanced. Think when it is time to think (planner — green), decide and “bottom-line it” (builder — brown), feel when it is time to feel (relater — blue), and take action when it is time to take action (adventurer — red).

It is crucial that you understand that you are capable of developing all four clusters, but you may presently be emotionally attached or locked into one cluster more than another. For whatever reason, certain behaviors have worked for you or felt more natural, so naturally you developed those more than the others.

Be forewarned, a single strength can get you into trouble. For example, if you favor acting quickly (adventurer), you may act without thinking (planner) or considering the feelings of others (relater). Or, if you have

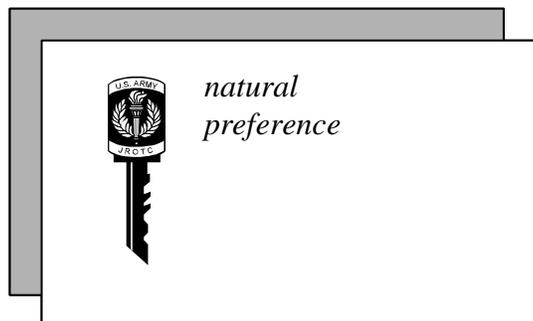
strong planner (green) but no adventurer behaviors (red), you may be unable to get up in front of a group of people and speak out clearly and confidently, without being embarrassed. Everyone benefits from the ability to shift between behavioral styles as needed, depending on the situation.

## **CONCLUSION**

It’s true that you can significantly improve your life by acquiring new behaviors to attain your goals. Making decisions, particularly effective ones, and making them quickly, is a complex set of behaviors. Since behavior is learned and can be reinforced until it becomes a habit, you have the power to choose new behaviors, even if they feel unfamiliar and alien to you today.

Taking an active approach in discovering your strengths and enhancing behaviors you find desirable is a healthy lifestyle choice. This lesson presented some information to help guide you on the path to self-discovery. As Socrates said, “Know thyself.” It is the beginning of wisdom.

## LESSON 2: APPRECIATING DIVERSITY THROUGH WINNING COLORS



### INTRODUCTION

Understanding yourself is an important aspect of creating a successful and happy life. It is also essential to develop your awareness of others, to become sensitive to the differences and similarities between us all.

### WE'RE ALL DIFFERENT



People become emotionally attached to those behaviors that nature and nurture first exposed them. This principle is crucial to your understanding of how to communicate effectively, and this is the first clue in understanding the make-up of anyone's "comfort zone."

When you have identified the present strength of the behavioral clusters of yourself or another, you have targeted this comfort zone. Generally people are more at ease if allowed to communicate within their individual comfort zones.

Asking or expecting others to behave outside their comfort zone is as hard on them as believing for yourself that you should be good at something you've never learned. Remember, though, even an old dog can learn new tricks!

### *SEEK FIRST TO UNDERSTAND*

Beware of assuming that a behavior that is **natural** for you will be so for others. This assumption can lead to unreasonable expectations of others and unnecessary frustration for yourself. Instead, try to keep in mind that others might be approaching things a little differently.

### *EFFECTIVE COMMUNICATION*

Developing awareness of others can help you to become a more effective communicator. By having insight into another's **preferences**, you may be able to adapt your personal communication skills and your behavior in such a way that they are more likely to hear, understand, and respond in a positive way. It's because you're "speaking their language" and what you say makes sense to them. When you speak out of a completely different behavioral style, you're much more likely to encounter resistance.

### **WINNING COLORS® POWER WORDS**

It has been found through years of research that certain words affect people differently. Through word association discoveries, it has been found that the mere

mention of a particular word produces tension in certain individuals. This is the basis of the lie detector test. When a question is asked, the person becomes emotionally involved and begins to perspire.



When you speak with a person with Planner behaviors, you succeed by using Planner power words. The same is true if you wish to communicate successfully with those inclined to Builder behaviors, etc.

Below is a list of words and phrases for each Winning Colors® behavior cluster. After identifying an individual's natural "cluster," use the list to help you communicate effectively with him or her.

### **Your Planner Power Words**

- Changing and improving
- Analyzing
- Being my best
- Dreaming
- Caring
- Inner life
- Thinking
- Inventing
- Knowing more

- Exactness
- Planning
- Revolution
- Knowing the future
- Freedom of thought

### **Your Builder Power Words**

- Always leading people
- Power
- Results
- Responsible
- Duty
- Tradition
- Money
- Be prepared
- I give directions
- Do it my way
- I like to get things done now

### **Your Adventurer Power Words**

- Test the limits
- Do it now
- Excitement
- Fast machines
- Fun
- Doing
- Action
- Risk
- Challenge
- Act and perform
- Freedom

**Your Relater Power Words**

- Always liking to be with people
- Hugs are special when I choose
- Friendly
- Giving
- I see everything
- Romantic
- Let's get along with each other
- Wanting people to like me

**CONCLUSION**

Being aware of what motivates people is worth your time and attention. The information and insight you gain can help you be more effective in all your relationships.

You have been given words and behaviors that will assist you in having the best possible success as a leader or communicator with others once you have identified their comfort zones.

Think when it is time to think (Planner — green), decide when it time to decide (Builder — brown), feel when it is time to feel (Relater — blue), and act when it is time to act (Adventurer — red).

## LESSON 3: PERSONAL GROWTH PLAN



*adaptability*  
*assertion*  
*change orientation*  
*deference*  
*emotional*  
*intelligence*  
*intrapersonal*  
*persistence*

### INTRODUCTION

Do you want to make more money, have better relationships, be the life of the party, start a new career, or just lose a few pounds? What do you need to do to accomplish your objective? You've probably heard words to this affect: "If you don't know where you're going, any road can lead you there." Likewise, if you don't know where you are, how do you know which road to choose?

Most of the success-oriented products being marketed today focus on the goal and tell you how to get there. These programs assume that if you "do as they do" you will be successful, too. The problem with this approach is that they don't know you. They don't know where you are today, so how can they give you directions to where you want to go?

### THE PERSONAL SKILLS MAP

The Personal Skills Map will help you identify where you are today and will show you what you need to know in order to accomplish your goals.

For example, all of us, at one time or another, have taken a trip and gotten lost. What do you do? Do you stop and ask for directions, look at a map, or call the person at your destination? Regardless of the method you choose, you must first ascertain, "Where are you now?" Only then can you discern how to get where you are going. The Personal Skills Map offers a way to discover where you are now and shows you how to get to where you want to go.

### THE SUCCESS PROFILER

The Success Profiler is a systematic, research-based assessment and skill-building system designed for the following purposes:

- Adapt to change
- Develop leadership skills
- Enhance ability to learn
- Promote sensitivity/diversity
- Build teamwork skills
- Prevent violent behavior

Rather than attempting to address knowledge and skills, this approach focuses on the **emotional intelligence** needed for success in key emotional skill areas. The assessment will help you identify those skills you need to develop, those that need strengthening, and those that can use some enhancement.

You begin the process of identifying where you are now by completing a four-part profiler assessment. Once completed, you will transfer your results onto your personal map.



The personal map is divided into 14 critical areas — key emotional skills.

1. Self-Esteem

The Self Esteem scale indicates a self-perceived level of personal worth. Research indicates that it is the most fundamental skill and it relates to major aspects of mental health and a healthy personality.

2. Interpersonal Assertion

The Interpersonal **Assertion** scale indicates how effectively an individual uses direct, honest, and appropriate expression of thoughts, feelings, and behaviors in dealings with others. It indicates an ability to be direct and honest in communicating with others without violating the rights of the other person.

3. Interpersonal Awareness

This scale indicates an individual’s evaluation of his or her ability for appropriate social, emotional, and physical distance in verbal and non-verbal interactions with others.

4. Empathy

The Empathy scale indicates an individual’s ability to sense, understand, and accept another person’s thoughts, feelings, and behaviors. Empathy is a primary characteristic of a skilled communicator. Persons with strong empathy tend to be sociable and outgoing.

5. Drive Strength/Motivation

The Drive Strength/Motivation scale indicates motivation and goal-setting abilities. Drive strength shows an ability to marshal energy and motivation toward the accomplishment of personal goals.

6. Decision Making

The Decision Making scale indicates perceived skill in formulating and initiating effective problem-solving procedures. The ability to make decisions is a key ingredient of self-acceptance and positive self-regard.

7. Time Management

The Time Management scale assesses ability to organize and use time to further individual and career goals. Ability to manage time is an ingredient in self-regard, sensitivity to needs, and perseverance in completing tasks.

8. Sales Orientation/Leadership

The Sales Orientation/Leadership scale indicates perceived skill in positively impacting and influencing the actions of other people. The ability to influence others in a positive way is an important aspect of leadership/sales.

9. Commitment Ethic

The Commitment Ethic scale indicates perceived skill in completing projects and job assignments dependably and successfully. Persons with strong commitment ethic are usually perceived as dependable and committed by others, are inner-directed, and persevere in completing projects regardless of difficulties encountered.

10. Stress Management

The Stress Management scale assesses perceived skill in managing stress and anxiety. Persons with skills in managing stress positively are competent managers of time and are flexible, self-assured, stable, and self-reliant.

11. Physical Wellness

The Physical Wellness scale reflects the extent to which healthy attitudes and living patterns that are important to physical health and well-being have been established. Physical wellness is highly correlated to positive stress management and high self-esteem. Persons with high scores have developed high levels of self-control over potentially harmful behavior patterns.

12. Interpersonal Aggression (Anger Management)

The Interpersonal Aggression scale assesses the degree to which communication styles violate, overpower, dominate, or discredit another person’s rights, thoughts, feelings, or behaviors. High interpersonal aggression is related to the personality characteristics of rebelliousness, resentment, and oversensitive response to real or imagined affronts.

13. Interpersonal Deference (Fear Management)

The Interpersonal **Deference** scale measures the degree to which communication style is indirect, self-inhibiting, self-denying, and ineffectual for the accurate expression of thoughts, feelings, and behaviors. High interpersonal deference is related to the personality characteristics of apprehensiveness, shyness, and oversensitivity to threat or conflict.

14. Change Orientation (Comfort Level)

The **Change Orientation** scale indicates the degree of motivation and readiness for change in the skills measured by The Personal Skills Map. A high score indicates dissatisfaction with current skills and a strong conviction of the need to make personal changes.

Key Emotional Skills by Skill Dimension		Lowest 0-20 pts	Midpoint 21-40 pts	Highest 41-100 pts
Skill Dimension 1 Intrapersonal Skills	Self Esteem	+	+	+
Skill Dimension 2 Interpersonal Skills	Interpersonal Assertion	+	+	+
	Interpersonal Awareness	+	+	+
	Empathy	+	+	+
Skill Dimension 3 Career/Life Skills	Drive Strength/Motivation	+	+	+
	Decision Making	+	+	+
	Time Management	+	+	+
	Sales Orientation/Leadership	+	+	+
	Commitment Ethic	+	+	+
Skill Dimension 4 Personal Wellness Skills	Stress Management	+	+	+
	Physical Wellness	+	+	+
		Low	Normal	High
Skill Dimension 5 Prosocial Behavior	Interpersonal Aggression	+	+	+
	Interpersonal Deference	+	+	+
Personal Change Orientation		+	+	+

On the Personal Map, the 14 key emotional skills are grouped into five skill dimensions. These skill dimensions help you identify your strengths and weakness in **intrapersonal** skills (those that occur by yourself), interpersonal skills (those that occur with others), any problematic behavior that needs to be addressed, and your willingness to change (**adaptability**).

The first skill dimension is Intrapersonal Skill and includes the Self Esteem emotional skill. This skill dimension is related to how you evaluate and accept yourself as a person.

The second skill dimension is Interpersonal Skills and consists of the Assertion, Awareness, and Empathy emotional skills. This skill dimension is related to how you interact with others and how you tend to communicate in stressful situations.

The third skill dimension is Career/Life Skills and consists of the Drive Strength/Motivation, Decision Making, Time Management, Sales Orientation/Leadership, and Commitment Ethic emotional skills. This skill dimension focuses on skills that are important in effectively managing your daily environment and school demands.

The fourth skill dimension is Personal Wellness Skills and consists of the Stress Management and Physical Wellness emotional skills. This skill dimension is extremely important in both emotional and physical well-being.

The fifth skill dimension is Problematic Behavior and consists of the Interpersonal Aggression and Deference emotional skills. This skill dimension provides an indication of behaviors that negatively affect personal mental health and career effectiveness.

At the bottom of the Personal Skills Map is the Personal Change Orientation category. This score indicates your motivation and willingness to change behavior.

High scores on the Personal Skills Map indicate that you are aware of a need to improve your personal skills. It is possible that this awareness has caused some increased stress and anxiety in your life. Conversely, a low score on the map indicates that you are satisfied with your current interpersonal and intrapersonal skills and behavior.

## CONCLUSION

Whether you are satisfied with your current skill level or desire a change, knowing where you are today can help you map a plan that leads you toward your goals.

It's nice to know that our personal skills are changeable and that we are capable of learning and growing throughout our life. If you are ready to strengthen or enhance your current skills, have **persistence** in your efforts, and use the results of the assessment to help guide you toward your personal goals, you will become a better, well-rounded individual.

## LESSON 4: BRAIN STRUCTURE AND FUNCTION



*axon*  
*brain stem*  
*cerebral hemispheres*  
*cortex*  
*dendrite*  
*limbic system*  
*neural plasticity*  
*neurons*  
*neurotransmitter*  
*sensory flooding*  
*sensory gating*  
*synapse*

### INTRODUCTION

This lesson introduces you to the most marvelous and mysterious part of your anatomy — the human brain. Many people never totally discover or exert the full potential of their brain. In this lesson you will explore current research on what the brain is (structure) and how it works (function). You'll learn practical ways to apply complex concepts that will put you in control of your own mind.

### EVOLUTION OF THE HUMAN BRAIN

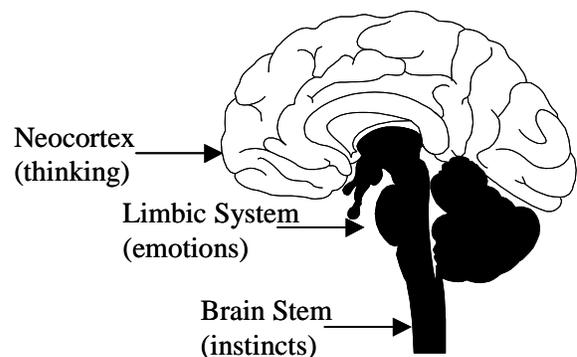
One way to look at the brain's structure is based on the theory of evolution. Only 100,000 years ago, the ancestors of modern man had a brain weighing only about a pound, which is roughly a third of the weight of our current brain. Most of this increased weight is because of a much larger cerebral **cortex**. Here most of the thinking that makes human beings such unique mammals occurs. This tremendous growth is an important aspect of the evolution of the human brain.

### THE TRIUNE BRAIN

An early description of the human brain was conceived by MacLean that attempted to explain its structure in terms of how it has evolved. According to MacLean's theory, three separate and distinct brains exist, from oldest to more recent. As each brain evolved, the older brain was retained for its specialized functions, and the new brain simply formed around it.

MacLean's theory provides a simple, easy to understand concept of the human brain. This description relates directly to evidence about how the brain actually works, as you will see in the sections on Brain Function and Downshifting.

The human brain, top to bottom, has three parts: the neocortex mushrooming out at the top, the **limbic system** (below that), and the **brain stem** (at the base).



The brain stem, sometimes called the reptilian brain (R-complex), is considered to be the oldest part of the brain from an evolutionary standpoint. It follows then that much of the processing of basic survival needs (eating, breathing and the “fight or flight” response) occurs here. Fight or flight is the common terminology for a complex set of reactions to a perceived threat, really the organism's ability to go on red alert and respond quickly. Many of the body's systems

respond in automatically in order to increase the chance of survival when under attack.

The limbic system, once thought to be associated exclusively with emotion, is now known to process not only emotional response but also a number of high-level thinking functions, including memory.

The neocortex, sometimes called the cerebral cortex, is believed by researchers to have grown out of the limbic system at some time in human evolution. Though not exclusively, the neocortex is where most higher-order and abstract thoughts are processed. The two hemispheres of the neocortex also handle input from our sensory systems, making connections between various stimuli, such as associating what we see with what we hear. This makes comprehension possible, and is how we make it all meaningful.

This newest part of our brain, the neocortex, also attaches feeling and value to stimuli it receives. When humans learn, the structure and chemistry of nerve cells in the neocortex are changed.

The concept of “making meaning” is explored further as we delve into learning styles and processing preferences in other lessons. But first let’s take a closer look at how the brain functions, this time from top to bottom, and how it interacts with the rest of the body.

### *BRAIN FUNCTION (TOP TO BOTTOM)*

The brain is vital to human understanding and the ability to learn. Perhaps you’ve heard of “higher level” thinking skills. This phrase refers to the level of information processing and response required by a particular task. Some complicated tasks can require a high level of information processing.

Here’s an example. When you touch a hot stove, you pull your hand away quickly. That activity does not take much thinking, and it had better not take a lot of time! In fact, your nervous system is designed to process information like that automatically, with little help from the neocortex.

Think about getting burned. What information would be helpful to store long term about that experience? Maybe the size, shape, and color of the heat source will help you to avoid the problem in the future. But the “how to” of pulling away your hand is best left to the quick reactions of nerves and muscles. Given the brain structure presented in Triune Brain theory, which of the three major regions is probably in charge of the burn response?

If you figured the brain stem, you’re pretty close. In fact, muscles can react to nerve impulses without those impulses ever traveling up the spinal cord to the brain. The withdrawal reflex, where the finger is pulled away from the pain as muscles contract, is the simplest act that the nervous system can perform. It is automatic and unconscious; it does not involve any higher-level thinking.

### *DOWNSHIFTING*

Now let’s look at a process we call downshifting. From the top to bottom view just described, downshifting describes what occurs when information processing moves from the higher-level thinking regions of the brain, the neocortex and even the limbic system, down into the brain stem and even into the automatic responses of reflex. Why does this happen? Why give up the ability to ponder and reflect and instead revert back to instinct and involuntary reflexes? Fear and intimidation are two main reasons downshifting occurs.

In the presence of perceived threat, survival becomes important and the brain discerns the need for speed. Like the burn example above, your nervous system is fine tuned enough to automatically revert to more efficient processing methods in order to keep the organism safe and sound. In other words, the brain will downshift from neocortex involvement to rely more heavily on the survival and emotional processing of the brain stem and limbic system whenever the organism perceives a threat.

Perhaps you have a lot at stake in the outcome of that upcoming geometry test. Maybe you won't pass this year if you don't complete a major writing assignment. Or maybe you know someone who believes being tough helps motivate people to perform better. Sometimes tough comes out more like put-downs and threats, instead of inspiration, high standards, and a belief in your ability to succeed.

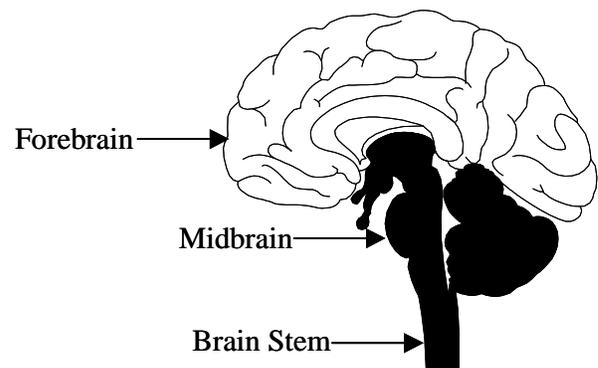
Psychological threats can produce the same kind of flight or fight response needed when an animal is under attack from a predator. And to be more efficient, the brain downshifts.

Trouble is, you need your whole brain involved, *especially* the neocortex, in order to solve these problems. Fight or flight reactions won't help. One thing you *can* do is notice when your emotions react and your mind seems to shift into an automatic mode of response. Being self aware of a downshift gives *you* the chance to incorporate your higher level thinking skills in evaluating the situation. Then your whole brain is in operation; ideas and creativity can flow to help you determine a better way to respond to the challenge at hand. This enhanced state of being fully engaged and aware is what we call whole brain activation. Taking in and

processing information in many different ways activates the whole brain.

## MAJOR BRAIN AREAS

The brain is comprised of a number of different regions, each with specialized functions. Here is another view of the brain's structure and function, also with roughly three separate parts.



The brain's central core, which includes the brain stem and the midbrain, is quite different than the cerebral cortex that envelops it. The central core is relatively simple, older and its activity is largely unconscious. In contrast, the cortex is highly developed and capable of the deliberation and associations necessary for complex thinking and problem solving. In humans, its size and function has increased rapidly. While the older portions of the brain remain relatively static.

### THE BRAIN STEM

The brain stem seems to be inherited almost "as is" from the reptilian brain. It consists of structures such as the medulla (controlling breathing, heart rate, and digestion) and the cerebellum (which coordinates sensory input with muscle movement).

## THE MIDBRAIN

The Midbrain includes features that appear intimately connected to human emotion and to the formation of long-term memory via neural connections to the lobes of the neocortex. The structures contained here also link the lower brain stem to the thalamus — for information relay from the senses, to the brain, and back out to muscles — and to the limbic system.

The limbic system, essentially alike in all mammals, lies above the brain stem and under the cortex. It consists of a number of interrelated structures. Researchers have linked the limbic system to hormones, drives, temperature control, and emotion. One part is dedicated to memory formation, thus explaining the strong link between emotion and long-term memory.

The limbic system includes these parts:

- The hypothalamus is instrumental in regulating drives and actions. **Neurons** affecting heart rate and respiration are concentrated here. These direct most of the physical changes that accompany strong emotions, such as the “flight or fight” response.
- The amygdala appears connected to aggressive behavior.
- The hippocampus plays a crucial role in processing various forms of information to form long-term memories. Damage to the hippocampus will produce global retrograde amnesia.

One very important feature of the midbrain and limbic system is the reticular activating system (RAS). It is this area that keeps us awake and aware of the world. The RAS acts as a master switch that alerts the

brain to incoming data — and to the urgency of the message.

## THE FOREBRAIN OR NEOCORTEX

The forebrain, which appears as a mere bump in the brain of a frog, balloons out into the cerebrum of higher life forms and covers the brain stem like the head of a mushroom. This, the newest part of the human brain, is also called the neocortex, or cerebral cortex.

### *The Neocortex*

The structure of the neocortex is very complicated. Here most of the higher level functions associated with human thought are enabled.

### *Brain Hemisphere*

In humans, the neocortex has evolved further than in other mammals, into the two **cerebral hemispheres**. The wrinkled surface of the hemispheres is about two millimeters thick and has a total surface area the size of a desktop (about 1.5 square meters).

For more information about the two hemispheres and how they work together, refer to the next lesson called *Left Brain/Right Brain*.

Remember that there is symmetry between hemispheres. However, not every specialized region is found on both sides. For example, highly specialized language centers exist only in the left hemisphere. The brain coordinates information between the two hemispheres, and does so with startling speed and skill.

Here is a brief description of the four lobes that make up the cerebral hemispheres, or neocortex.

### *Frontal Lobes*

The frontal lobes occupy the front part of the brain and are associated with making decisions, planning, and voluntary muscle movement. Speech, smell, and emotions are processed here as well. The frontal lobes control our responses and reactions to input from the rest of the system. The saying “Get your brain in gear” refers to activity in the frontal lobes.

### *Parietal Lobes*

The parietal lobes are most closely associated with our sense of touch. They contain a detailed map of the whole body’s surface. More neurons are dedicated to some regions of surface area than others. For example, the fingers have many more nerve endings than the toes, and therefore they have more associated areas in the brain for processing.

The parietal lobe of the right hemisphere appears to be especially important for perceiving spatial relationships. The recognition of relationships between objects in space is important to activities such as drawing, finding your way, construction, and mechanical or civil engineering.

### *Temporal Lobes*

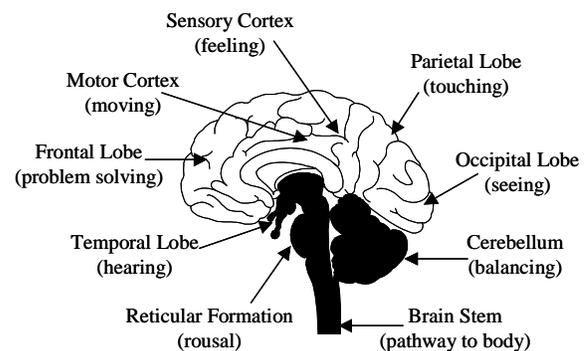
The temporal lobes are concerned with emotions, and also contain the primary auditory cortex, which processes sound. Doesn’t this provoke wonder at the profound connection between music and strong emotion?

### *Occipital Lobes*

The occipital lobes are the primary visual cortex. This area at the back of the

brain, just above the cerebellum, processes stimuli from our eyes, via the optic nerve, and associates that information with other sensory input and memories.

Recall that areas crucial to long-term memory also reside at the back of the brain. These association areas interpret sensory data by relating it to existing knowledge, and are essential to memory formation. More information on memory is included in later sections of the text.

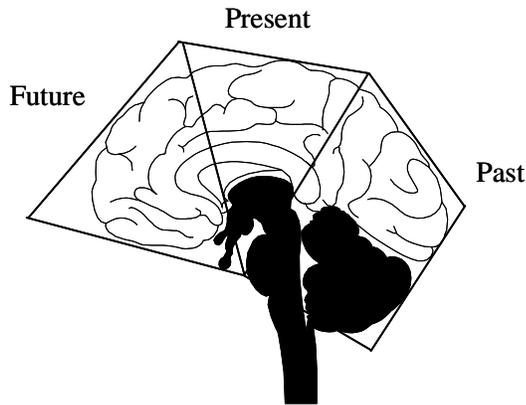


### *Sensory Cortex And Motor Cortex*

Regions called the sensory cortex and the motor cortex are sandwiched between the frontal and parietal lobes, right at the top of the head. These areas specialize in the control of movement and in receiving information from the body’s primary sensory systems (vision, smell, taste, touch, and sound).

### *Awareness Of Time*

According to some researchers, the lobes to the front and the back of the brain seem to be aware of the passage of time. Thus the frontal lobe of the neocortex appears to be responsible for planning, decision-making, and risk-taking while the back of the brain stores memories.



The middle section is focused on experiencing the present moment, since it houses the primary sensory and motor cortex. It is busily processing information from our five senses and sending control signals back out to our muscles.

## THE NERVOUS SYSTEM

The nervous system links the body to the external environment through sensory organs, permitting us to see, hear, taste, smell, or feel and to respond to stimuli. Through your five senses you know that the air is cold, it's early morning, and someone has a fire burning. The hot chocolate smells wonderful and the birds are singing. But *how* do you know?

### SENSORY SYSTEMS

The five most commonly known sensory channels — our eyes, ears, skin, nose, and tongue — all rely on specialized receptor cells to take in data from the external world.

Then, mechanical, chemical, and electrical processes transform the glow of the sun in your eyes and its heat on your skin into electrical impulses and send them sparking along nerve fibers (called sensory neurons). Traveling at speeds up to 290 miles per hour, jumping microscopic gaps (called **synapses**) along the way, these messages make their

way to nerve processing centers (called interneurons) in the spinal cord and brain. Then they connect back out to your muscles and glands (called motor neurons), causing you to sweat in response to the sun's heat.

### SENSORY FLOODING AND GATING

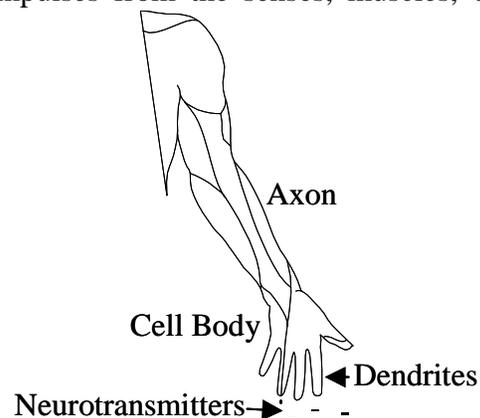
Lots of data comes in, all the time. We can't and don't pay attention to all of it. A "go or no go" signal occurs to regulate the transmission of stimuli. This is called the neuron spike point, or **sensory gating**. Without this monitoring, sensory overload, or flooding, would occur. This automatic physical process is a key aspect of what we actually process on a conscious level.

**Sensory flooding** is what happens when too much data is getting through. There is some indication that disorders such as autism are, in part, caused by this type of physiological data transmission problem.

### NEURON STRUCTURE

The graphic of the arm and hand below is used to illustrate a neuron. The arm represents the **axon**, long fibers that send electrical impulses and release **neurotransmitters**. The hand is like the cell body and the fingers are like **dendrites**.

Messages are transmitted as electrical impulses from the senses, muscles, or other



neurons. The neuron processes the impulse and then sends the message to other neurons via axons. When the impulse reaches the end of the axon, the dendrites pick up the signal as a chemical neurotransmitter synapse.

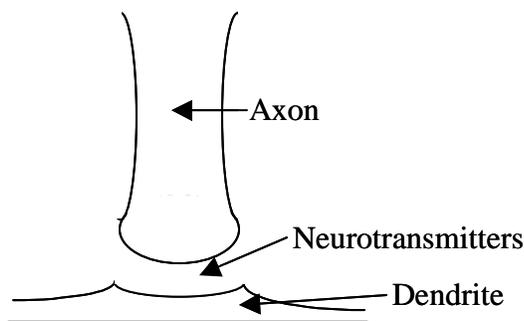
### NEUROTRANSMITTERS

Neurotransmitters are chemical in nature and are used to accept an electrical impulse from the axon at a synapse and relay it to the dendrites.

The neurotransmitters carry excitatory or inhibitory messages and effect behavior patterns such as pain and pleasure.

### AMAZING FACTS ABOUT NEURONS

- 50 to 100 billion nerve cells act as information specialists in the brain and spinal cord.



- Tens of billions of messages travel as electro-chemical impulses every few seconds of every day of your entire lifetime.
- Some single nerve cells, such as the sciatic nerve in your leg, contain dendrite branches 3-feet long.
- Along these large nerve fibers, impulses travel up to 290 miles per hour.

## BRAIN GROWTH

The human brain has evolved over time to a three-pound mass of tissue, sparking with electro-chemical interactions. Our jaws and teeth have grown smaller, infancy and childhood last longer, and we physically mature and reproduce at an older age. All these evolutionary adaptations have reserved both time and energy to devote to brain development.

### HUMAN THOUGHT

With the advantages of a larger brain and more processing power, humans now are able to solve problems, make decisions, and generate options. Emotions are now rich and complex, giving us the ability to fall in love, nurture each other, and hope for a better future. The wonder of a more highly developed limbic system and neocortex is lived out each day in processes we often take for granted.

Looking closely at complex processes, such as learning, and understanding how these things occur, can bring further advantages. For with understanding comes the ability to make choices to improve our lives. And these choices can literally make our physical body work better, by increasing the size, number, and connections between neurons, the basic cellular building block of the human nervous system.

### GROWING DENDRITES, MAKING CONNECTIONS

The billions of nerve cells connect to each other in billions of combinations, forming trillions of pathways for nerve signals to follow. This results in dendritic growth. The dendrites continue to grow throughout your lifetime.

## NEURAL PLASTICITY

In addition to adding and refining neural networks through the growth of dendrites, the human brain is capable of adapting specialized nerve function for another critical use when called upon to do so.

**Neural plasticity** concerns the property of neural circuitry to potentially acquire (given appropriate training) nearly any function. For example, the connections between the eye and primary visual cortex suggest that neural circuits are wired by evolution for sight, and sight alone.

The brain’s amazing adaptive ability has been demonstrated through the research of many scientists. Neural plasticity is an important adaptation. Like other tissue plasticities, it tends to occur when called upon for special skill development, or fine-tuning existing capabilities. So, for example, when a musician makes special demands for left hand skills in the process of learning how to play the piano, the brain adapts by increasing the number of neural circuits in the right primary motor cortex.

Similarly, the area of the brain devoted to the right index fingertip (the reading finger) is larger in Braille readers compared to that for their non-reading fingertips, or for sighted readers, according to researchers Pascual-Leone & Torres, 1993.

## INTERESTING FACTS ABOUT BRAIN GROWTH

- We produce no new nerve cells after roughly the time of birth. These cells must be nurtured since they must work for the next 80 years or so.
- Our infant brain demonstrates on-the-job training; the brain is being used at the same time it is being assembled.

- We are fairly helpless at birth. Less than 1 percent of the portion of our brain circuitry that will be dedicated to receiving sensory information needed for perception and cognition is functional at that point.
- At birth, 100 billion nerve cells in our cerebral cortex set about wiring incredibly complex circuits (some 5,000 to 10,000 connections to each nerve cell).
- Through learning mechanisms in the brain, the brain continues to rewire and change its circuitry throughout our lives.

## MEMORY SYSTEMS

Researchers have identified different types of neural systems that store memories, each with their own focus and purpose. Perhaps you’ve heard of long-term and short-term memory. That’s one way to categorize memory systems, in terms of how the brain intends to use the information — for short term processing needs or as a reference that will be useful to solve problems in the future.

Have you ever heard of the term “muscle memory?” Perhaps you’re aware that people can ride a bike, swim, play the piano, or demonstrate a dance step after not doing those activities for many years. Recent research has indicated that nerve fibers in the muscles, and not just the brain, are actually involved in some of this long-term memory storage. It’s as though, with enough repetition, the body will store signals to make body parts move in certain ways. That way, when the body is called upon to do those things, processing time is faster. You literally can do things “without even thinking about it.”

## MEMORY STORAGE

Recall the idea that both sides of the brain are processing sensory data about the

same thing at the same time, but in different ways. This theory regarding how the brain hemispheres both specialize and synchronize was presented in the previous textbook section.

The research indicates that one system handles the detail work while the other creates a framework. The two systems are called taxon and locale memories.

Taxon memory handles rote memorization of data. Multiplication tables, spelling words, and the bones of the hand are examples of data that use the taxon memory system. It requires effort, such as repetition and practice, to store taxon memories (rote learning).

The locale memory system, on the other hand, stores mental maps. These are configurations of information connected to events or associated information (map learning).

### *MEMORY RETRIEVAL*

The brain has the ability to withdraw information stored in taxon memory more readily when they are stored as part of one of the locale memory system's mental maps. Anything you can do to increase the creation of a mental map, or schema, is critical to long-term memory storage.

For example, continuous, repeated practice is one way to aid memory and retrieval capacity. Another method is to create associations with things you already know, to take your understanding to a new level and enable application of the information in more complex ways.

Involving additional sensory systems is helpful to increase retrieval possibilities. Some people find using body movements will

aid long-term storage and retrieval. For example, these “kinesthetic/tactile learners” will recall a telephone number by repeating the movements needed to press the phone keys. Others might recall a rhythm or sound pattern formed when saying the numbers out loud. We'll further explore these interesting differences in the *Multiple Intelligences* lesson.

### **INTELLIGENCE DEFINED**

The ability to solve a problem is one way to define intelligence. Another way to describe intelligence is to talk about the ability to create something or to contribute in a tangible way to one's social system or culture.

These words describe a great deal of human activity. In fact, problem solving is one way experiments are designed to test the intelligence of other species. Researchers present a task to the animal and observe what resources she or he brings to bear on the “problem” of task completion. For example, monkeys have been known to use sticks to access food or playthings.

The ability to solve a problem — from “the food is out of reach” to “how do we get to the moon” — or the capacity to create a product is how Howard Gardner defines intelligence in his theory of multiple intelligences. These capabilities are considered distinguishing characteristics of intelligent life. For Gardner to include a specific problem-solving style as a defined intelligence, the activity must meet additional criteria. For example, to make Gardner's list, each particular intelligence must have specific regions of the brain specialized to support that function.

Organisms that do not take in sensory information, process that information, and make decisions about what action to take

based on that information are, by definition, less intelligent. The amoeba that takes in nutrients as it drifts around in the water is not solving problems. Its biological processes support food intake in that environment. Without a food source, it would die. It would not be capable of generating any options to enhance survival.

You, on the other hand, are capable of resourceful ingeniousness when it comes to solving problems in order to survive. For more information on this exciting subject, take a look at the lesson on *Multiple Intelligences*.

## CONCLUSION

Knowing how the brain functions should give you a better understanding for how we humans are so much alike, yet can behave, and react to similar stimuli in completely different ways. Knowing how your brain works may make it easier for you to learn, communicate, and resolve conflict.

## LESSON 5: LEFT-BRAIN/RIGHT-BRAIN



*analysis*  
*bi-lateral*  
*bi-lateral transfer*  
*cognition*  
*corpus callosum*  
*complimentary*  
*dominant*  
*global*  
*hemisphere*  
*local*  
*specialize*  
*synchronize*  
*synthesis*

Another way to visualize what your brain looks like is by doing the following demonstration. Make a fist with both hands and put them together in front of you, about chest high and knuckles up. Look down at your fists. This will give you an idea of the physical appearance of your brain. From this view, you can clearly see the separation between the left and right halves. The following four illustrations show you other views of your brain.

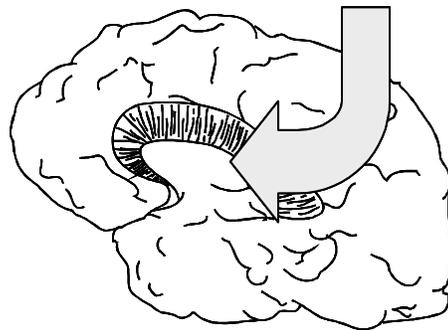
### INTRODUCTION

Can you imagine what your brain looks like? Close your eyes for a few seconds and visualize it positioned in the space inside your head; then, open your eyes again.

What did you see? Actually, your brain looks like an English walnut with the shell removed. It has a deeply wrinkled surface with a clearly marked fold that divides it into a left and a right half.

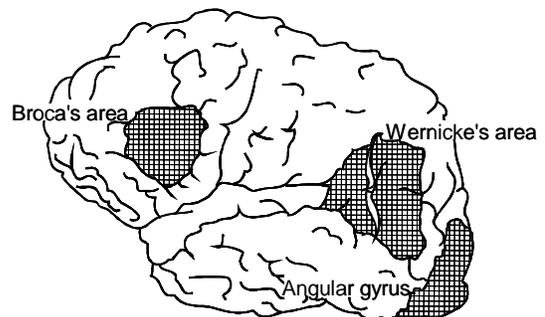


### CORPUS CALLOSUM



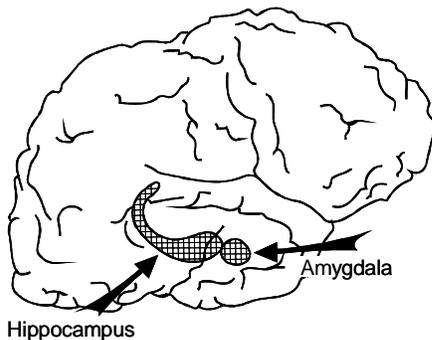
The corpus callosum is the bundle of fibers that connects the two hemispheres.

### LANGUAGE CENTERS



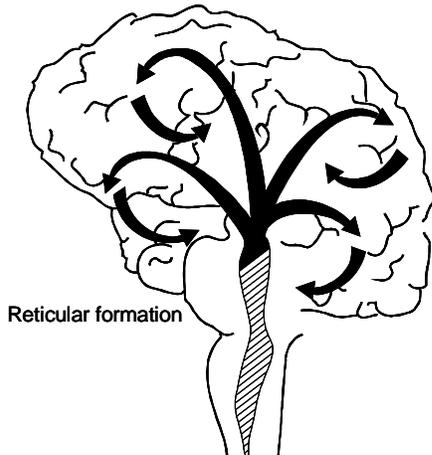
The language centers (Broca's area, Wernicke's area and angular gyrus) are usually located in the left hemisphere.

## MEMORY STRUCTURES



The amygdala and hippocampus located in the midbrain are responsible for transforming short-term memory into long-term memory.

## RETICULAR ACTIVATING SYSTEM



The reticular formation (or reticular activating system) is the seat of consciousness that is responsible for mental alertness, and it connects the conscious and subconscious minds.

Why is the brain divided into a left and right side? For hundreds of years, scientists believed that the two sides were mirror images of each other. Since nature equips us with two eyes, ears, legs, and kidneys that perform the same function, why not both sides of the brain?

Only within the last forty years has science shown that the left and right-brain **hemispheres** have unique and specific functions. Before this breakthrough, brain function

was a mystery. More than ninety percent of all science known about the brain is directly or indirectly related to left-brain/right-brain research, which scientists also refer to as split brain or hemisphere specialization research.

## SPLIT BRAIN RESEARCH

In the 1950s and early 1960s, neurosurgeons who were treating patients with uncontrollable epileptic seizures decided to perform a radical type of brain surgery. They completely separated the two halves of the brain, creating a split brain, by cutting through the **corpus callosum**, the bundle of fibers that connects these halves. To the doctors' surprise and pleasure, these patients suffered no change in intelligence, personality, or daily function, and their seizures stopped.

However, split-brain patients did report oddities and curiosities (such as, one patient had difficulty learning to associate names with faces, many patients had subtle memory difficulties, and most patients complained that they no longer dreamed). These reports initiated a tremendous interest in research, thus creating a rapid buildup of knowledge about the brain.

Research in sleep labs proved that split-brain patients do indeed dream, indicated by a special brain wave pattern and rapid eye movement below the closed eyelid. These patients could not remember their dreams because one side of the brain is responsible for dream activity and the other side records the dream into words. Because the doctors had disconnected the two sides, the brain could not share this information between the two hemispheres.

Other research suggested that the two sides of the brain have a specific set of functions. Victims of automobile accidents

with injuries to the left side of the head lost the ability to speak, but they could still sing. Persons with right-brain damage lost memory of faces and an orientation to their surroundings, even their home (referred to as spatial orientation). These early findings illustrated that speech and language functions are on the left side of the brain and facial recognition, spatial orientation, and music functions are on the right side. Both hemispheres of the brain are involved in higher **cognitive** functioning; with each half of the brain **specialized** in **complimentary** fashion.

### HEMISPHERIC SPECIALIZATION

The expression — left-brain/right-brain — refers to specialized functions of the two hemispheres. Scientific research with healthy human subjects used a new brain scan technique called Positron Emission Tomography (PET) scan to confirm these findings.

Individuals were connected to a machine that mapped brain activity by lighting up to show which part of the brain was active. In a typical experiment, the researcher gave each subject a series of tasks to perform, and then recorded which side of the brain was most active. Results indicated that activities involving numbers, logic, word puzzles, sequential tasks and **analysis** were more active on the left side of the brain; whereas activities involving music, imagination, colors, or creative expression were more active in the right hemisphere. Evidence suggests that the right-brain has a **global** bias while the left-brain has a **local** bias. In other words, the right hemisphere sees the picture and the left hemisphere sees the components of the picture.

The distinctiveness of the left and right-brain functions has led to the notion that humans have two brains. Although research shows that each hemisphere may be in charge

of a specific set of functions, neither side has exclusive control of those functions. Both sides can interchange roles.

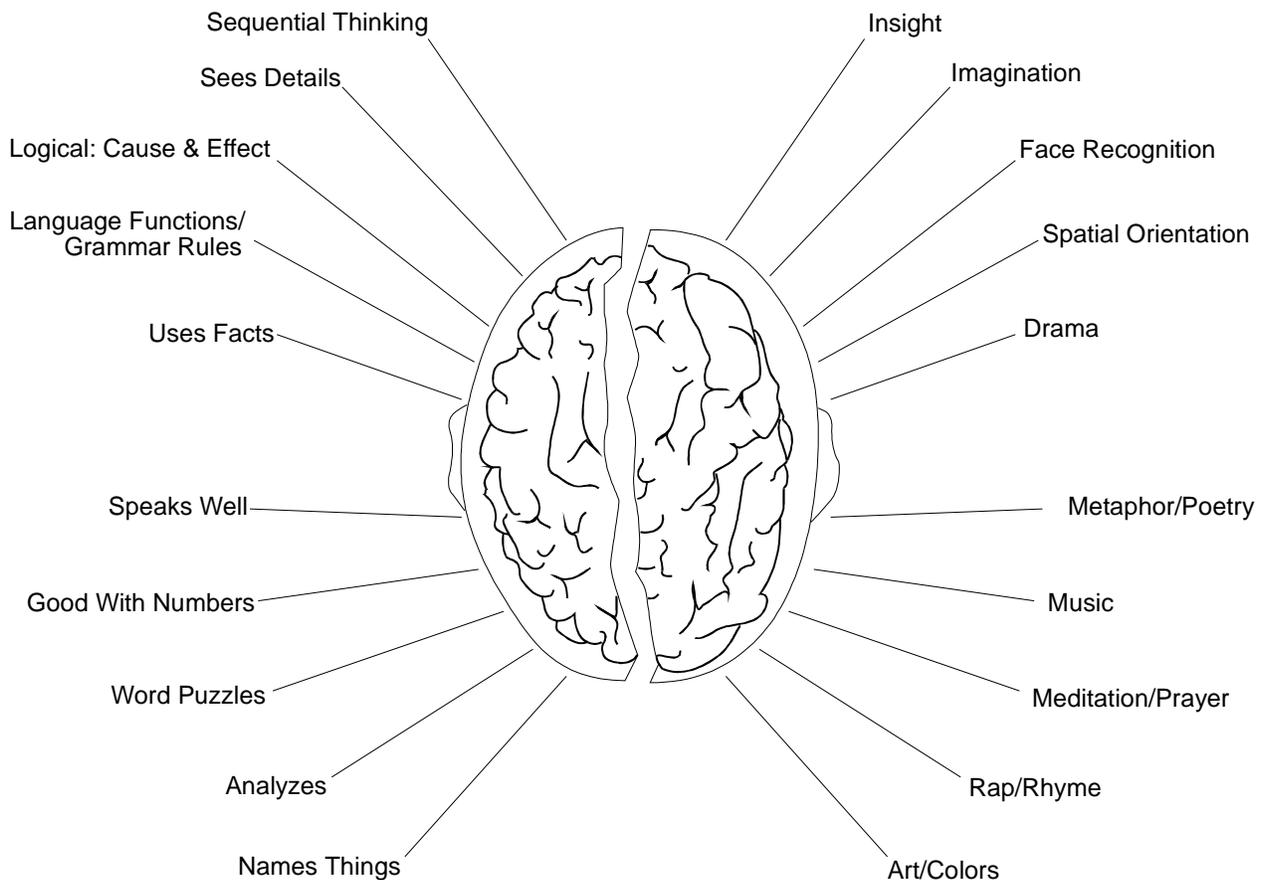
The illustration on the next page graphically displays a summary of those functions for both sides of the brain.

### BRAIN HEMISPHERE LEARNING

Research identifies the left-brain as the Academic Brain because educators generally emphasize its processes in the traditional classroom, resulting in certain groups using hemisphere specialization to explain limitations of traditional learning. On the other hand, research identifies the right-brain as the Artistic Brain because it is in charge of creative talents.

Although fields such as science and medicine now pay more attention to these brain processes, education has traditionally neglected the right side, leaving half of a student's brain potential undereducated. However, more and more school systems are using whole-brain learning techniques.

Recently, educational researchers have shown that a balanced involvement of both sides of the brain in the classroom can create surprising learning gains in many types of students: children, adult learners, the so-called “mentally dull,” and the genius. Thus, these studies conclude that learning can proceed at astounding rates when teachers have students integrate both sides of their brain in a lesson. For example, kindergarten teachers who use music, dance, storytelling, drama, or numerous other right-brain activities as part of their routine teaching strategy not only aid the left-brain learning of their students, those also learn at incredible rates. After third grade, when the use of these aids typically diminishes, learning rates drop significantly as well.



### LEFT-BRAIN/RIGHT-BRAIN FUNCTIONS

### BRAIN HEMISPHERES

The brain splits up functioning and then coordinates and **synchronizes** information processing from the two hemispheres. Split-brain research back in the 1960s resulted in some early views of a logical-creative functional split. This simplistic understanding has evolved to a more complex view.

Brain scanning technology has been instrumental in furthering our knowledge base in the area of brain function, specialization, and synchronization. The brain devotes areas to specialized tasks. For example, there are clearly areas in the cortex devoted to visual and auditory data, as well as areas that deal specifically with language, memory, and so on.

Different, specialized brain areas process related information at the same time (such as visual data, sound, and smells). These associations enhance long-term memory storage. These “initial,” or “level-one” processing areas then transfer (hence the term **bi-lateral transfer**) processed data onto another area for higher level thinking skills and further processing. Distinct data is then integrated.

**Bi-lateral** transfer refers to the ability of the brain to transmit data processed in one hemisphere and coordinate and integrate it with data processed in other areas. The processing appears to take place in levels.

That is, initial processing seems to focus on the sensory input. Integration occurs between areas. Higher-level thinking skills get involved to make sense of the data.

This all happens very quickly, but there is both a sequential nature and a spiraling nature to the increasingly complex processing that occurs. That is, the brain has the ability to apply increasingly sophisticated analytical and evaluative thinking and it does so progressively. The brain also **synthesizes** new information and experiences with existing knowledge, memories, beliefs, values, and emotions.

### THE DOMINANT SIDE OF THE BRAIN

This lesson introduces you to the concept of brain preference, or brain hemisphere dominance, and explains brain preference from a personal, cultural, and career perspective. In class, you may have the opportunity to complete a brain preference test that will tell you which part of your brain you prefer.

As more knowledge about the brain became available, professionals in fields such as science, medicine, and education asked more questions. One interesting line of research explored the question of whether people rely on one side of the brain more than the other. Is one side of the brain **dominant**?

Researchers believe that brain dominance determines a person's preferences, problem-solving style, personality characteristics, and even career choices. For example, a right-brain individual will quickly get a feeling for a situation, while a left-brain person will usually ask a lot of questions first. The following chart reflects additional differences between left and right-brain dominance.

PERSONAL PREFERENCE	
LEFT DOMINANCE	RIGHT DOMINANCE
Classical music	Popular music
Being on time	A good time
Careful planning	To visualize the outcome
To consider alternatives	To go with the first idea
Being thoughtful	Being active
Monopoly, scrabble, or chess	Athletics, art, or music

There is nothing good or bad about either preference. Both orientations can be equally successful in accomplishing a single task; however, one may be more appropriate over the other depending on the situation.

### HOW BRAIN PREFERENCE DEVELOPS

Researchers have determined that brain preference does not come from a person's conscious choice about which side of the brain to use. However, what they want to know more about is whether children inherit their brain preference from their parents (obtained from nature), it is socialized from early childhood experiences (obtained from nurture), or a combination of both. Different studies on how brain preference develops suggest that:

- Dominance is present at birth, but that children may not be able to establish it well until they are five years old — while other studies suggest that children continue to develop their brain preference until they reach puberty.

- A strong relationship exists between the brain preference of infants and their parents, suggesting that genetics has a major influence on brain preference.
- Early childhood experiences, or nurturing, can play a major part in brain preference development.

## **DOMINANCE AND CAREER CHOICE**

As children grow, they will continue to prefer activity on one side of the brain, which eventually can reflect in their choice of a major in college or a career preference. College students who major in literature and the humanities show a greater degree of right-brain activity, compared to those majoring in science and engineering, who show high left-brain activity.

Studies have also indicated that brain dominance can be inferred from a person's occupation. Typically, lawyers, chemists, mathematicians, and accountants are left-brain dominant because these occupations require logical, sequential, and analytical skills. Characteristically, musicians, actors, athletes, and artists are right-brain dominant because they rely on right-brain functions such as body sensing, rhythm, color imagery, and spatial orientation.

Distinctions in brain preference also exist in the same occupation. Corporate and contract lawyers are often more left-brain oriented than domestic and criminal lawyers. Rock musicians and recording artists are often more right-brain dominant than classical musicians. Successful managers and administrators in the same field may have a different brain dominances. The manager who works well with people most likely have a right-brain tendency, while administrators who do a lot of planning will tend have the left-brain dominance. Careers in the military follow this same pattern — some are more

left-brain oriented while others are more right-brain oriented.

## **YOUR OWN BRAIN PREFERENCE**

By now you are probably very curious about your own brain preference, and have definite feelings about which side you prefer. Knowing your brain preference is important because it determines certain likes, dislikes, skills, and weaknesses.

These preferences may develop very early in your life and may become more extreme as you develop and grow older. For instance, if you are good at basketball, but not at reading, you would most likely spend more time playing basketball than reading. Thus, your abilities and personality may become one-sided. To become a well-rounded, actualized person, you need to consciously develop the less preferred side of your brain.

## **THINKING BETTER**

In today's society, a crisis exists in how people think — that is, oftentimes people do not think independently or creatively. This lesson gives you the opportunity to examine how you think, how you can improve your thinking process, your problem-solving style, and how to balance brain functions to obtain better results. Successful people know how to use their whole-brain functions in order to solve their problems successfully.

## **VERBAL AND VISUAL THINKING**

Each side of the brain has its own thought process, which appears in our conscious mind as voices or pictures. The left-brain produces verbal thought while the right-brain creates pictures or visualizations (known as visual thought). Researchers also believe that emotional feelings, hunches, gut reactions, etc. — which people attach to these

voices and pictures — represent a third brain input called kinesthetic thought. The combination of these three processes is the way people program their brains to accomplish their life goals.

### VERBAL THOUGHT

People experience verbal thought through self-talk. Psychologists use self-talk extensively today to help individuals with many of their life problems by giving them “thought-stopping” techniques to break the habit of negative thinking. For example, star athletes go to sport psychologists to learn how to apply positive self-talk to improve their game. Statements used to condition positive self-talk are affirmations — high quality statements that promote successful thinking and feeling. People who make the most of affirmations like them so much that they adopt them as personal slogans. Additionally, thinking about an affirmation and repeating it over and over will make it a part of an individual’s self-talk, programming the brain to bring about the desired end result.

The affirmations listed below are examples that one can use to promote success in learning (the first group of four) or for life in general (the second group of four).

- Learning is something I enjoy immensely.
- Learning is inside me just waiting to happen.
- My memory is sharp; my mind is powerful.
- I recognize the right answers at the right time.
- I am kind, patient, and compassionate with myself.
- I stand tall inside myself.

- I have the energy and determination to tackle and solve my toughest problems.
- I have everything it takes to achieve my goals, beginning now.

### VISUAL THOUGHT

The visual pictures that you form in your mind may be crystal clear and in full color or they may be fuzzy, fragmented, and unstable. Some people visualize only in black and white; others do not make pictures at all. People also experience visual thought while they are daydreaming. As a child, visual thinking is prevalent, but by fourth or fifth grade, outside influences can discourage children from daydreaming. Many adults consider it to be a waste of time. However, visual thought is very important and is the beginning point of anything new in one’s life. Everything created by humans once existed as a picture in somebody’s mind.

The old expression — “*a picture is worth a thousand words*” — means that visual pictures impress the memory better than verbal thoughts. For example, students who routinely visualize what they read in books perform better on tests and most people remember faces longer than names. Our society may give verbal thinking more importance, but it appears that visual thinking has more brainpower. The following examples are ways you can develop your visual thought power to bring about desired outcomes.

### ***Flashback***

Flashback uses constructive daydreaming to strengthen right-brain processes. When you need more energy or motivation to get a task done, like studying for a difficult

exam, flashback to a time when you had plenty of energy and enthusiasm. Perhaps you were on a hike with friends or washing cars to earn money for a trip — get in touch with what you were experiencing in detail. Recall how you were breathing and moving. Try to match the feeling of expectancy, of being connected to a purpose, and of getting on with things to complete them. When you come out of your flashback, bring this energy with you and apply it to the task at hand — studying for that difficult exam.

### ***Flash Forward***

When you desire to accomplish something, advancing in rank in JROTC, making the honor roll, or obtaining a scholarship for college, flash forward to that event. Imagine precisely how you expect to experience it. See your name on the honor roll, and feel the pride swell in your chest. Feel your breath stop and your entire body warm up in response to your acceptance letter. Experience how you will accept congratulations — with humility from your superiors and with unrestrained joy from your closest friends. Visit this scene in your mind often as you continue to prepare for your goals. You will be using goal-state visualization, a very powerful mental technique to obtain what you want in life.

For best results, use verbal and visual thinking together and amplify the effect with strong feelings and emotions (kinesthetic thought). Say your affirmations aloud and see yourself acting or feeling the way they suggest. Once you start your goal-state visualizations, monitor your self-talk and make sure it supports your goals. If something happens to create discouragement, talk yourself up with an appropriate affirmation, like: “There’s nothing to fear but fear itself,” or “I’ll turn down my fear and turn up my confidence.” When your verbal thoughts,

mental pictures, and feelings are in harmony with your goals, you will be activating the strongest force on earth – a made-up mind.

### **YOUR PROBLEM-SOLVING STYLE**

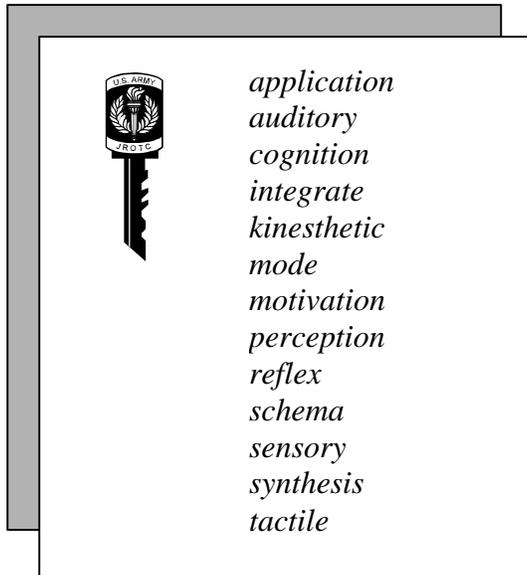
Would you like to be able to solve your problems, including those that you consider to be very difficult, with some form of a process or style? You probably already do, but have never thought about it before. In the activities for this lesson, you will have the opportunity to complete an exercise that will test your problem-solving style to see if it is left or right-brain. Both sides have advantages and limitations; however, depending upon the circumstances, one of the sides or styles will provide the lead for you to make the best solution. For best results, learn how to combine the left and the right sides of your brain to solve problems, especially those very difficult ones.

### **CONCLUSION**

Knowing about the functions of the brain is good, but knowing something definite about your own brain is better. So far you know that the left and right-brain hemispheres have specialized functions and, in many instances, educators emphasize the left-brain and neglect the right-brain.

During your stages of learning, growth, and personal development, the world can and will present different types of challenges that will place complex demands on your brain. Know how to use your brain efficiently. Know your individual brain preference and your problem-solving style, then use both sides of your brain to set and accomplish goals and to tackle those difficult challenges.

## LESSON 6: LEARNING STYLE AND PROCESSING PREFERENCES



### INTRODUCTION

People learn in different ways. Learning is a complex, interrelated system of accessing information, getting it into the brain, and processing that information to solve problems or support activities.

Learning styles describe the various ways people gather as well as process information. Each of us has a propensity for looking, listening, or touching: some read the instructions for Monopoly, others ask to hear the rules explained, still others get the dice rolling and learn as they play. Furthermore, we each have our most productive time of day, favorite chairs to sit in, and other environmental factors that help us concentrate or feel energized.

Understanding learning styles leads to success. Once you know what learning environment works best for you and what your preferred learning style is, you will see how

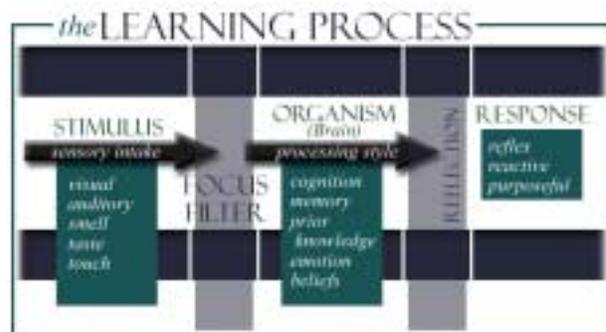
you can use your preferred learning style to move information through the learning process and to:

- Learn new information more quickly and efficiently.
- Remember new information for a longer period of time.
- Increase your ability to recall the information more quickly and completely for performance, discussion, or test taking.

### THE LEARNING PROCESS

When you learn something, you are acquiring a skill, knowledge or attitude. The process of learning involves the ability to take in data, process it, store it, and retrieve it at a later time.

Your five senses (hearing, seeing, touching, tasting, and smelling) take in stimuli from the environment. The stimuli are subconsciously filtered, causing you to focus on some stimuli and ignore others. Those selected stimuli are sent to the brain (organism) for processing, where they are linked to prior knowledge, evaluated against your beliefs, and stored in memory. The stimuli, if encountered again, will then elicit a learned response.



If you touch a hot iron for the first time, the burning sensation is sent to your brain. The brain processes it as pain. This causes the **reflex** response of removing your hand quickly.

The learned response, however, would be to not touch the iron again.

## PREFERRED LEARNING ENVIRONMENT

Can you identify personal experiences that illustrate your preferences of a good learning environment? Can you recall times when learning frustrated you? If you examined each of those times, you would probably see that you were working outside of a preferred environment. The aspects of the learning environment that have an impact on the learning process are:

- **Sound** — Some people need it absolutely quiet in order to concentrate. Others work or study more effectively only if there is music or noise around them.
- **Light** — Too little or too much light can either inhibit or encourage learning. Many adolescents usually prefer soft or dim lights to study.
- **Design** — This refers to the formal or informal settings and furniture in the room where you study. For instance, do you use a desk or do you prefer the floor, bed, or just the chair?
- **Time of Day** — Some people are night people and others are early morning workers
- **Food Intake** — This is your need to eat, drink, or chew gum while studying or working.
- **Social Aspects** — This is your preference to work or study alone, with a partner, or in a group.

## PERCEPTUAL MODALITIES

Clearly our ability to learn is dependent upon our ability to take in, filter, select, process, and then apply new information.

We take in new information through our five senses: hearing, seeing, touching, tasting, and smelling. For most humans, three of the senses dominate our **perceptions**. *Perceive* means “to become aware of through the senses” and **mode** simply means method, route or way. Thus, perceptual modality is another term used to describe the different **sensory** channels.

Humans tend to rely on seeing, hearing, and touching as the primary methods for taking in stimuli from our environment. Of course, a physical limitation might exist that limits one of the senses and the person might have to adapt. In other mammals, dogs for example, smelling and tasting are highly developed

Learning styles are often categorized according to a person’s strongest sensory system; thus we have **auditory**, **kinesthetic/tactile** and **visual** learners.

The next lesson will explore several learning models that consider how preferences affect the learning process.

### *THE BIG THREE — AUDITORY, KINESTHETIC, AND VISUAL*

How do you gather information? What is your strongest sensory system?

**Auditory** learners are the listeners. This 30 percent of the population may need to repeat instructions, even silently, to mentally “hear” information as they commit it to memory. They learn well by discussing ideas and asking questions. They like cooperative learning and group projects.

**Kinesthetic/Tactile** learners gather meaning through touch and movement. All young children depend heavily on this strength, which is why it’s so hard to walk through an art

gallery with a small child who wants to “see” by touching. About 5 percent of the population holds onto this style throughout their adult lives, continuing to learn best through physical interaction.

About 65 percent of us are **visual** learners who gather information best by looking, reading, and watching. Visual learners may tune out spoken directions and favor illustrated explanations or charts. They “see” ideas in the mind’s eye, remembering visual details from places they’ve visited.

## ADAPTIVE SYSTEMS

With increased use, our sensory systems — and their associated neural networks in the brain — become more sensitive and are able to process data more efficiently. In turn, people are able to come up with more skilled responses. For example, not only does the concert pianist have more finely tuned abilities to hear sound than the average person, but his or her fine motor skills, and the sensitivity of their very fingertips, are increased through the growth of neuronal connections. Thus the old adage “Practice makes perfect” actually has a physical reason for being true.

The brain can also adapt to meet specialized needs when there is a physical disability or injury. For instance, a non-hearing person handles sophisticated language tasks, like storytelling, with no auditory stimulus and limited ability to speak aloud. Most of us create language by making words come out of our mouth. However, a non-hearing person is likely to tell a story by using sign language.

While some people think that each of us is born with given strengths, others believe that we develop strengths through our experiences and skill building activities. The bottom-line is that people have strengths. Being aware of your strengths allows you to leverage those strengths

to achieve your goals and increases your ability to make an informed choice to develop in key areas.

## METACOGNITION

You have the ability to bring your perceptions and processing into conscious consideration. We call this process, thinking about thinking, or **metacognition**. It is the simple process of becoming more aware.

In the learning process, metacognition can be a valuable tool for self-development. Paying attention — becoming more aware of your perceptions and thoughts and more deliberate in your choice of responses — is all part of developing as a person.

## ATTENTION AND MOTIVATION

An important component of our learning is the process of directing our **attention**. This brings us squarely into the question of **motivation**. What do we focus on, and why?

Your motivation, or personal interest is an important component of what you *consciously* choose to focus on. You may ask yourself:

- What is the “payoff” or reward?
- Are you learning for pleasure or for the avoidance of pain?
- Are you “grades” oriented or “learning” oriented?
- Are you learning to please yourself or someone other than yourself (parent, friend, teacher, officer)?

## DATA SELECTION AND ATTENTION

You have the ability to direct your attention and decide what to focus on. For the

sake of efficiency, however, these decisions are often made *subconsciously*. Lots of data comes in all the time, and we can't and don't pay attention to all of it. A lot of this data, depending on your goals, is potentially unimportant, depending on your goals, and therefore distracting. A “go or no go” signal occurs to regulate the transmission of stimuli. Thus, the sound of the air conditioner or refrigerator, many details in the visual field, traffic noise, and so on, are simply ignored in terms of conscious thought.

This physical fact reflects an important reality in the learning process. Given the billions of sensory messages taken in and processed constantly, a key activity stands out as extremely important — the ability to filter and select on what data to focus.

When some stimuli are present over a period of time, we adapt to them. *Continuing* stimuli of *constant* intensity will stop activating the receptors, in other words, we “tune out.” Think about what this means about how you learn.

If your teacher's voice drones on and on, same pitch, same tone, same type of words, your brain tends to switch off and filter that sensory input. Same thing if you keep trying to solve a problem the same way. The magic of active learning happens when you use a variety of stimuli. Even small changes can make a big difference in activating different regions of the brain.

Moving from a short lecture, to building something, to reading quietly, to talking over ideas with another student — this changes the manner in which information is taken in and processed. A mixture of activities will stimulate the brain with different types of impulses, to keep those receptors firing. Learning becomes even more activated when there are spaces in the constant data flow for quiet reflection.

## MENTAL FILTERS

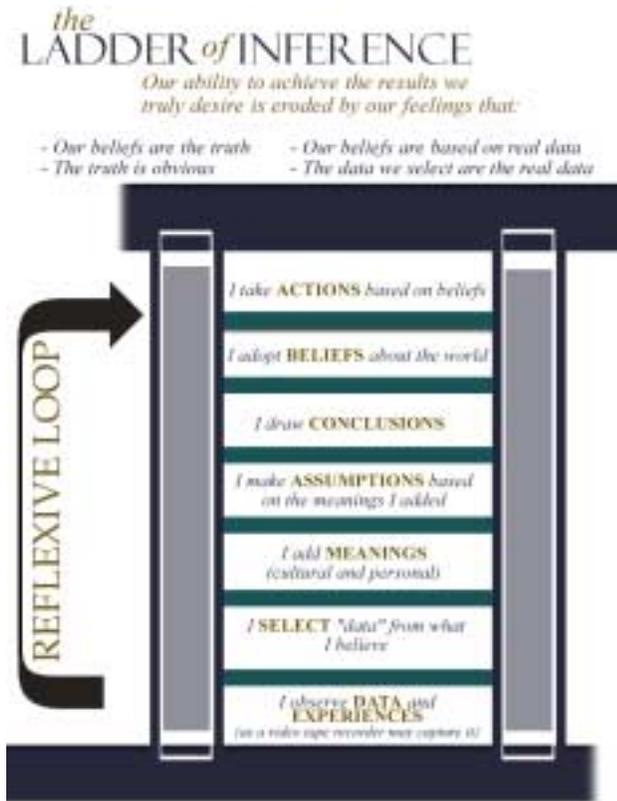
Not only is the data being absorbed, but it is also being evaluated against prior knowledge and then interpreted. Once you have gathered your selected stimuli, you group them into a cluster that you can label, so that the label makes sense to you. This helps you to know, almost without thinking about it, whether it's safe to reach out and touch the hot iron.

You have a stored set of beliefs in your memory called a **schema**. The schema is an outline of the way things are, your own representation of reality. These beliefs cause you to monitor and select the stimuli you take in and to which you pay attention. These internal models limit the data you are curious about and explore.

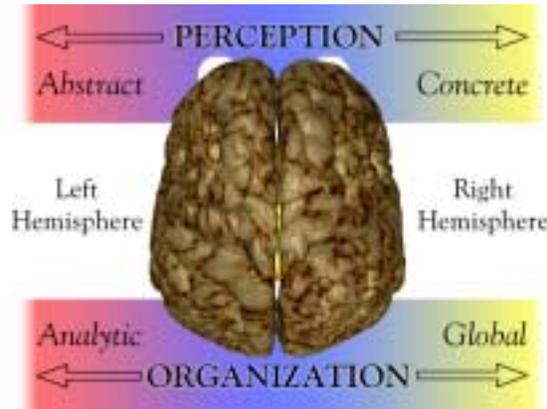
## LADDER OF INFERENCE

In his book, The Fifth Discipline Field Book, Peter Senge describes a type of schema called the Ladder of Inference. In this model, we begin with real data or experience (stimuli), and from that “real data” we select the data to which we pay attention. Then we attach meaning to this selected data, make assumptions, and draw conclusions. From our conclusions, we adopt beliefs about the world, which then cause us to take actions, and help determine the data that we select the next time. This mental pathway can be a slippery slope that will often lead to misguided beliefs.

For example, if you believe that a particular person doesn't like you, you tend to only see and hear those actions or statements that support your belief. This is another way you filter information.



organize that information so that you can later recall and use it.



**PROCESSING STRENGTHS**

In addition to the preferred input modality, there are clear differences in processing preferences. This tends to break down in alignment with the right brain and left brain specializations discussed in an earlier lesson. For example, activities involving numbers, logic, word puzzles, sequential tasks, or analysis are normally more active on the left side of the brain whereas activities involving music, imagination, colors, or creative expressions are normally more active on the right side. As you grow, you continue to develop a brain preference; that is, you will prefer activity on one side of the brain over the other.

In the diagram shown below, you can see that during the memory phase of the learning process, learning occurs in both hemispheres. That is, both sides have the ability to *perceive* information, new ideas, etc., then to

Thus we have **global** and **analytic** learners, in accordance with the brain’s ability to focus the abilities of the left hemisphere on details and of the right hemisphere on the big picture.

In other words, besides visual, auditory, or kinesthetic intake strengths, people lean toward one of two styles for processing information: analytic (those individuals who see the individual elements most clearly) and global (those individuals who focus on the big picture).

**ANALYTIC LEARNERS**

Analytic learners examine information by breaking it down bit-by-bit and arranging logically. One person’s tidy suitcase displays a bent for order and sequence, as does a penchant for lists and punctuality.

An analytic learner is happiest when his or her life marches forward predictably, when he or she can follow a plan, and know the rules. Analytic learners are able to see the trees through the forest, which helps keep them (and those around them) rooted and productive.

## *GLOBAL LEARNERS*

Global learners, on the other hand, may miss a few trees, but they can surely see the forest. They organize by clustering information into groups. Their focus is drawn to the larger ideas underpinning the details; they concern themselves with the purpose behind the specifics.

Global learners can appear disorganized because of their impatience with minutiae and their willingness to jump between ideas in random ways. They'll bend rules — including schedules and deadlines — to fit what they see as a greater purpose.

We are all capable of absorbing data through any of our senses, and of processing new information in many different ways. This is a tribute to the brain's amazing adaptability and resourcefulness. Nonetheless, knowledge of our strengths and learning preferences helps us to understand our own processes, enabling us to make choices that will empower us as lifelong learners.

## **LEARNING RESULTS**

So, what are the tangible results of learning? If your parents ask, "What did you learn today?" can you answer the question accurately and completely?

The basic response to new information is to check it against what you already know, and then to either discard it, store it, or act on it. As we've discussed, you can do some of this processing unconsciously. When threatened, people can react quickly without rational thought. Detailed memories are stored of events that happen very quickly. That's why a smell or sight can trigger a memory long forgotten — the memory is stored intact, the connections are there, and the whole thing can come back in vivid detail when triggered.

It is important to be able to recall information when you need it, and to make connections between different things you've learned. These connections, linking new stimuli to prior knowledge, are called mental maps. The amazing thing is that your brain can actually improve by increasing the number of connections, and in the clarity of your internal mental maps.

These mental maps, or reference points, are among your greatest assets for taking in new data quickly and easily. You need them to have a framework, or schema, in which to store the data. Otherwise, your brain may drop data out of short-term memory without storing long term, or your brain may store information in a way that prevents access to it.

## **CONCLUSION**

The learning process enables you to acquire knowledge, skill, and attitudes. As you become more aware of how you learn, you'll be able to increase your abilities to absorb new information, and apply it in new situations. You'll also remember information longer and improve your recall ability.

Knowing how you prefer to learn and understanding how you do learn are very important aspects that can help you to succeed in school, in your employment, and in your career.

## LESSON 7: LEARNING MODELS



### INTRODUCTION

Think about your favorite class. Does the teacher lecture? Do you do experiments or go on field trips? Does the teacher show video clips or movies? Do you work in groups? Do you use role-play to act out different scenarios? Chances are, your the teacher is using learning activities that match your learning style and processing preferences.

We can all learn, but we don't all learn in the same way. Where learning is concerned, there is no one approach that fits all people. If instruction is designed and implemented with consideration of different styles of learning, students will be able to increase concentration, as well as process and retain more difficult material.

### MODELS OF LEARNING

Models help us to make sense of our world. They provide a framework or structure to help us understand a large or complex concept, and break it down into discrete, manageable units.

Learning models provide teachers with an organized system for creating an appropriate learning environment, and planning instructional activities. Learning models affect what the teacher does, what the student does, the organization of the classroom, the nature of the

procedures, materials, and the instructional tasks.

In this lesson, we will examine two distinct, but complementary learning models: *Dunn & Dunn Learning Styles Model*, and *Kolb's Experiential Learning Model*. Each of these models is based on your individual learning styles and processing preferences. The use of the learning styles model requires teachers to reorganize the instructional environment and instructional activities in order to move from methods that were primarily dominated by lectures to classrooms that facilitate several simultaneous approaches to learning. Both of these models have years of research support behind them, and practical classroom applications to validate them.

### NINE FACETS OF BRAIN COMPATIBLE LEARNING

As we discussed in the previous lesson, the learning process is all about how we take in, filter, store, and organize information in our brain. This research on how the brain perceives and processes information leads us to a greater understanding of how we learn and it forms the underlying principles on which learning models were built.

The Nine Facets of Brain Compatible Learning (adapted from *Brain Compatible Learning for the Block*, by Williams and Dunn) are:

1. *Learning becomes relevant through personal context.* Students need to understand how this new information relates to their "real life."
2. *Learning is dependent upon motivation.* Students need to be motivated in order to commit the new information to memory.
3. *Learning is reinforced through hands-on experience.* This experience enables the

student to put a concept or theory in context and examine the parts that make up the whole.

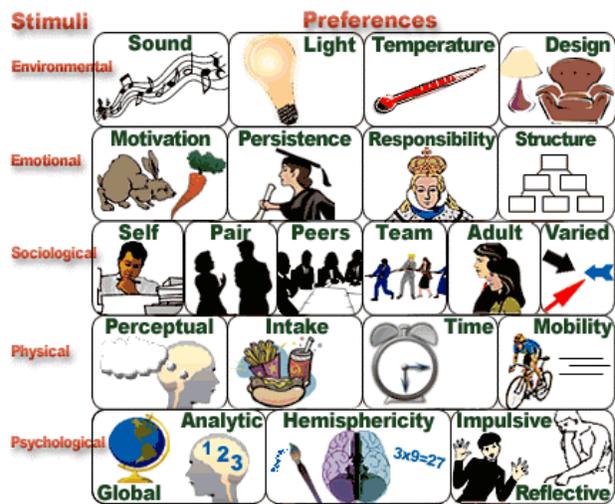
4. *Learning requires linking new information to prior knowledge.* The brain has a much greater capacity to take in and store new information that it can relate to something already learned. Teachers need to help students make these connections.
5. *Learning is achieved more efficiently when information is chunked.* By grouping together related information, the brain forms a schema, or concept, and assigns meaning.
6. *Learning is enhanced with time for reflection.* Reflection, or thinking about what was just learned, helps put the new information in long-term memory. Activities such as group discussions, questioning, and writing in a journal all aid in this process.
7. *Learning is retained longer when associated with senses and emotions.* The more senses that are involved in the learning experience, the more stimuli have a chance of reaching long-term memory.
8. *Learning occurs in an environment that fosters and accommodates various ways of being smart.* We all have multiple intelligences that need to be accommodated and strengthened. We will discuss this in depth in the next lesson.
9. *Learning is a high-energy activity.* If not rehearsed, new information will begin to fade after 30 seconds. It is essential that instructors cover new information several times and in a variety of ways.

### THE DUNN & DUNN LEARNING STYLES MODEL

Developed by Drs. Rita and Kenneth Dunn, this model emphasizes the organization of the classroom and the use of a variety of instructional activities and procedures. Based

on the premise that, for a student to have the best opportunity to learn, the instructional techniques must match each student’s individual learning style. This model does not address the curriculum content or instructional goals and objectives.

The Dunn & Dunn model involves two main activities: 1) identifying the individual learning style. 2) planning and implementing learning activities that accommodate the student’s individual learning style strengths. In this model, the learning style is defined as the preference for or aversion to variables within five identified groups of stimuli. The diagram below graphically depicts the Dunn & Dunn model.



The five stimuli groups or dimensions encompass environmental, emotional, **sociological**, physiological, and psychological areas. The stimuli deal with how the learners perceive, interact, and respond within the learning environment. Within these groups are 21 variable, or elements for which a learner may have a preference.

#### ENVIRONMENTAL PREFERENCES

- Sound — Do you like background music, or do you prefer quiet while studying?

- **Light** — Do you prefer dim or bright light while studying or concentrating?
- **Temperature** — Do you prefer the room temperature to be cool or warm while engaged in learning activities?
- **Design** — This refers to the furniture arrangement that the student prefers. Do you normally sit at a desk (formal) or do you prefer the couch, bed, floor, pillows, etc. (informal)?

### *EMOTIONAL PREFERENCES*

- **Motivation** — Are you self-motivated to learn? Or are you primarily motivated by adult feedback and reinforcement?
- **Persistence** — This relates to the learner’s attention span and ability to stay on task. Do you prefer to work on one task or do you like to work on a variety of tasks simultaneously?
- **Responsibility** — Do you prefer to work independently with little supervision? Or do you prefer to have frequent feedback and guidance?
- **Structure** — Do you like step-by-step instructions, or do you prefer to be given an objective and left alone to decide how to complete the task?

### *SOCIOLOGICAL PREFERENCES*

- **Self** — Do you prefer working on a task by yourself?
- **Pair** — Do you prefer working on a task with one other person?
- **Peers and Teams** — Do you like working as a member of a team?
- **Adult** — Do you like to work with an adult or teacher?

- **Varied** — Do you like routines or patterns or do you prefer a variety of procedures and activities?

### *PHYSICAL PREFERENCES*

- **Perceptual** — Are you a visual, auditory, or kinesthetic/tactile learner? (see Lesson 6 for a detailed explanation).
- **Intake** — Do you prefer to drink, eat, or chew gum while studying?
- **Time** — This refers to the time of the day when you have the most energy. Are you an early bird or a night owl? Somewhere in between?
- **Mobility** — Can you sit still, or do you prefer to be moving while involved in a learning task?

### *PSYCHOLOGICAL PREFERENCES*

- **Global/Analytic** — Are you a “big picture” person, or are you more detailed oriented?
- **Hemispheric** — Do you have left brain tendencies (sequential learners) or right brain tendencies (simultaneous learners)? This overlaps with the global/analytic preferences.
- **Impulsive/Reflective** — Do you tend to make decisions quickly or do you take time to consider all the options?

## **HOW DOES LEARNING STYLE AFFECT INSTRUCTION?**

Once you have an understanding of the preferences that affect your learning, how does that understanding translate in the classroom? As we said at the beginning of this lesson, the models will influence what the teacher does, what the student does, what the classroom looks like, and the materials and learning activities you use.

## TEACHER'S ROLE

The teacher's primary role in both of these models is that of facilitator and leader. Of course, the first the responsibility of the teacher is to identify the student's learning styles. The most effective method is an instrument called a Learning Style Inventory (LSI), which is a self-evaluation that the students complete.

Next, the teacher must arrange the physical classroom to accommodate the different learning styles. Some students might prefer an informal setting, while others might perform better in a more traditional desk and chair.

Finally, the most difficult, and time-consuming responsibility of the teacher is to plan and develop a variety of alternate learning activities that will accommodate the different learning styles of the students (role plays, instructional games, reading, individual assignments, group discussions, writing in a journal, etc.).

## STUDENT'S ROLE

Each student is responsible for developing an understanding of his or her learning preferences and using that understanding to enhance his or her own learning experience. Armed with the knowledge of how they learn, students should be able to select appropriate activities so that they will be able to learn more quickly, and retain the new information. Studying should be much more productive.

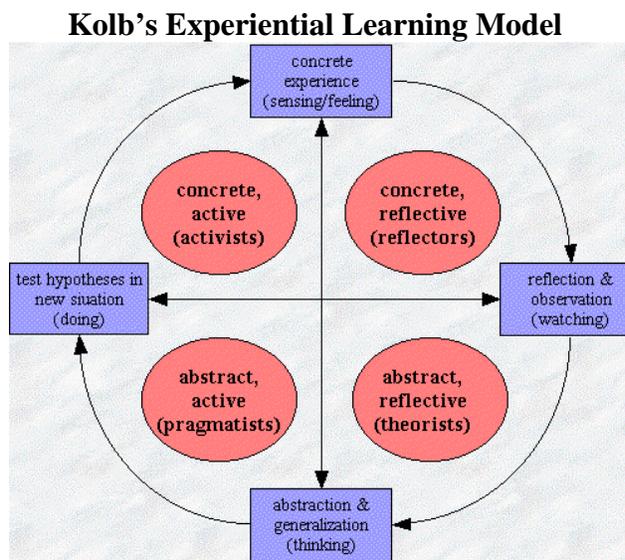
## KOLB'S EXPERIENTIAL LEARNING MODEL

Like the Dunn & Dunn model, Kolb's model of experiential learning recognizes the need to address individual differences in learners. Each advocated that in order to be effective, instruction must be modified to

accommodate a variety of learners and learning styles.

The Kolb model is a holistic approach to learning that deals primarily with processing preferences — the process by which information is obtained, stored, sorted, and utilized. It defines a four step learning process and then goes on to describe the four learning styles (preferences) used within the process.

The learning cycle is a series of experiences, and each stage of the cycle is associated with a distinct learning style. You can enter the cycle at any of the four processes. The diagram below illustrates the Experiential Learning Model.



- *Concrete Experience* occurs when the learner is actively experiencing an activity (e.g. science lab, field class).
- *Reflective Observation* occurs when the learner is consciously reflecting back on that experience.
- *Abstract Conceptualization* happens when the learner is being presented with or trying to conceptualize a theory or model of what is (or is to be) observed

- *Active experimentation* happens when the learner is trying to plan how to test a model, or theory or plan for a forthcoming experience.

The four quadrants within the learning cycle represent the four personal learning styles. Because each is based on two dimensions, it is somewhat more complex than the Dunn & Dunn model. According to Kolb's model, the four learning styles include the Theorists, Pragmatists, Activists, and Reflectors.

**Theorists** (or Assimilator) like to learn using *abstract conceptualization and reflective observation* (lecture, papers, analogies) and like to ask such questions as “How does this relate to that?”

The instructional approach for theorists includes using case studies, readings, and thinking alone. Theorists' strengths lie in their ability to create theoretical models. They are often more global thinkers and are concerned with abstract concepts.

**Pragmatists** (or Converger) like to learn using *abstract conceptualization and active experimentation* (laboratories, field work, observations). They ask “How can I apply this in practice?”

The instructional approach that works best with pragmatists includes peer feedback and activities that apply skills. They prefer to be self-directed, autonomous learners.

**Activists** (or Accommodator) like to learn using *concrete experience and active experimentation* (simulations, case study, homework). They tell themselves “I'm game for anything.”

The instructional approach for activists include practicing the skill, problem solving,

small group discussions, and peer feedback. They tend to solve problems intuitively, relying on others for information.

**Reflectors** (or Diverger) like to learn using *reflective observation and concrete experience* (logs, journals, brainstorming). They like time to think about the subject.

The best instructional approach to use with reflectors is lectures with plenty of reflection time. Their strengths lie in an imaginative ability.

Our learning comes from all four quadrants, but we have one that is our favorite. The ideal learning environment should include each of the four processes, and the learning activities should be flexible so that the learner can spend additional time on his or her preferred learning style.

The following is an example of teaching someone how to ride a bike using the Kolb Experiential Learning Model.

#### Learning to ride a bicycle:

- *Reflectors* — Thinking about riding and watching another person ride a bike
- *Theorists* — Understanding the theory and having a clear grasp of the biking concept.
- *Pragmatists* — Receiving practical tips and techniques from a biking expert
- *Activists* — Leaping on the bike and trying to ride it

## CONCLUSION

Learning models facilitate the process of linking instructional activities to individual learning styles, thereby increasing the learner's ability to acquire and retain knowledge.

## LESSON 8: MULTIPLE INTELLIGENCES



*bodily/kinesthetic  
intelligence  
interpersonal  
intelligence  
intrapersonal  
intelligence  
logical/mathematical  
intelligence  
musical/rhythmical  
intelligence  
naturalist  
verbal/linguistic  
visual/spatial  
intelligence*

### INTRODUCTION

In his book, Frames of Mind, Howard Gardner introduced his theory of Multiple Intelligences. Almost immediately, his theory took the educational community by storm. There are books, instructional strategies, tests, learning centers, and research studies centered on his theory that each individual is intelligent in a unique way. He asserts there is no single way of being smart and that the question should be “How are you smart?” not, “How smart are you?” With that question, he revolutionized the thinking about the definition of **intelligence**.

Everyone is different from everyone else in appearance, interest, ability, talent, and personality. The brain is no exception. We all have different kinds of minds. We use our different intelligences to solve problems, to choose a profession, and to excel in different aspects of our lives. Some of us are good with language; we talk and write easily, tell good

stories, and express our thoughts clearly. Others of us are designers who can decorate a room, design a house, or landscape a yard. Some are artistic and can create songs, draw paintings, play an instrument, or choreograph dances. Others are scientists or inventors who can solve problems, study issues, or do experiments. And some are team players that are good at working with, understanding, and influencing other people.

### EIGHT KINDS OF INTELLIGENCE

Traditionally, intelligence has been associated with certain standardized tests, such as the I.Q. test or the SAT; however, these tests only measure verbal and mathematical abilities. Gardner, on the other hand, defines intelligence as the “ability to solve problems or create products that are valued in one or more cultures or communities.” He believes that, among other criteria, intelligence is universal to all human beings, regardless of where you live or your culture.

Gardner has identified eight intelligences:

- **bodily/kinesthetic**
- **visual/spatial**
- **logical/mathematical**
- **verbal/linguistic**
- **naturalist**
- **musical/rhythmical**
- **interpersonal**
- **intrapersonal**

He believes there are more types of intelligence, but only eight have met his stringent criteria for inclusion. You can think of these as “languages” that most people speak, and that can be understood regardless of

cultural, educational, and ability differences. description of all eight intelligences is listed below.

### *BODILY/KINESTHETIC INTELLIGENCE*

Bodily/kinesthetic intelligence is the gift of physical prowess, coordination, fitness, and action. It is manifested in the skills of athletic performing, dancing, doing, experiencing, fixing, forming, making, and repairing.

Learning activities that tap into this intelligence include: acting; body language; choreography; constructing; energizers; experiments; field trips; games; learning centers; manipulating; pantomimes; role play; sports; and use of materials and tools.

### *VISUAL/SPATIAL*

Visual or Spatial intelligence is the gift of visually representing and appreciating concepts, ideas, and information (visual thinking). People, who have this intelligence like to draw, build, design, and create things.

Learning activities that tap into this intelligence include: artwork; blueprints; cartoons; designs; drawings; films; graphic organizers; illustrations; layouts; photography; manipulatives; maps; models; murals; posters and charts; props; sculptures; storyboards; and videotapes.

### *LOGICAL/MATHEMATICAL*

Logical/mathematical intelligence is the gift of reasoning and thinking in symbols and abstractions. It is manifest in the skills of calculating, computing, problem solving, and logic. If you have strong logical/mathematical intelligence, you are a “questioner.”

Learning activities that tap into this intelligence include: analogies; computer

games; deductive and inductive reasoning; formulas; graphs and information organizers; learning logs; outlines; problem-solving; puzzles; statistics; surveys; symbols; and time lines.

### *VERBAL/LINGUISTIC*

If you are endowed with verbal or linguistic intelligence, you have strong language and literacy skills. You are good at listening, reading, speaking, and writing.

Learning activities that tap into this intelligence include: biographies; books; cross-words; debates; dialogues; discussions; email; internet searches; letters; magazines and newspapers; poems; readers’ theater; reports; research; short stories; speeches; and story telling.

### *MUSICAL/RHYTHMICAL*

Musical or Rhythmical intelligence is the gift of melody, music, rhyme, rhythm, and sound. It is manifested in the skills of playing an instrument, vocal performance, appreciation of sounds and music, and timing and patterns.

Learning activities that tap into this intelligence include: ballads, cheers and chants, choirs, tapping, drumming, folk songs, imitations, jingles, percussions, raps, songs, and sound reproductions.

### *NATURALIST*

A naturalist intelligence is an environmental awareness. If you have this kind of intelligence, you understand the interrelationships of the natural world. It is manifested in the skills of classifying, observing, appreciating, and understanding the nature, recognizing patterns in nature, and

identifying the impact and consequences on the environment.

Learning activities that tap into this intelligence include: astronomy; bird watching; ecology; environmental issues; field studies; gardening; geology; native plants; nature walks; outdoor education; mythologies; pattern identification; recycling; and weather forecasting.

### *INTERPERSONAL*

People with interpersonal intelligence are “socializers.” They have the gift of working with people and understanding the complexities of human relationships. It is manifested in the skills of caring, collaborating, communicating, empathizing, leading, and peacemaking. They like to work in groups.

Learning activities that tap into this intelligence include: case studies; class discussions; classroom roles and responsibilities; constructivism; cooperative learning; group projects; interviews; jigsaw; pen pals; service learning; shared homework, structured conversations; team building; and tutoring.

### *INTRAPERSONAL*

Intrapersonal intelligence is the gift of inner thought, self-awareness, and self-reflection. It is manifested in the skills of goal setting, self-assessing, and self-regulating. People with intrapersonal intelligence prefer to work alone.

Learning activities that tap into this intelligence include: authentic assessments; autobiographies; calendaring; choice theory; diaries; goal setting; independent reading; meditations; metacognition; personal essays; personal planning time; portfolios; quiet or reflection time; reflective or response journals; and rubrics.

### **CONCLUSION**

Understanding how your own body works to support the learning process helps you to become a more active learner. We all have multiple intelligences; however, some are stronger than others. As you engage in learning activities that are compatible with how your brain takes in, processes and stores information, learning will occur more naturally, and comprehension and recall will increase. The power to learn quickly and to apply what you’ve learned is in your hands when you know how the process works.

## STUDY SKILLS

### LESSON 1: BECOMING AN ACTIVE LEARNER



*active*  
*classify*  
*creative*  
*critical*  
*generalize*  
*objective*  
*passive*  
*predict*  
*subjective*  
*visualize*

4. Look at situations objectively.
5. Ask the right questions.
6. Use time well. They organize and set priorities.
7. Apply good reading, studying, and questioning skills to written materials.
8. Apply good listening skills in the classroom.
9. Find patterns and take effective notes to organize materials for studying.
10. Assess progress along the way and revise their plans.

You can probably think of additional traits that active learners possess. In contrast, **passive** learners may work hard, but they do not take charge of the learning processes. Compare the differences between active and passive learners (on the table on the next page).

### INTRODUCTION

**Active** learners do not wait for learning to happen — they make it happen. You learned to crawl, to stand up, to walk, and many other things because you wanted to learn them. This desire to learn something made you ask the people around you for help. Active learning is an instinct with which you were born.

### WHO ARE ACTIVE LEARNERS?

Active learners display most of these ten basic traits and can do the following:

1. Identify personal goals and the steps necessary to achieve the goals.
2. Use resources. Identify the people and tools available to aid in goal pursuit.
3. Learn how to solve almost any problem they ever have to face.



**ACTIVE LEARNER VERSUS PASSIVE LEARNER**

<i><b>PASSIVE LEARNER</b></i>	<i><b>ACTIVE LEARNER</b></i>
Approaches learning as “remembering.”	Approaches learning as “thinking.”
Reads the textbook, takes some notes, and spends hours trying to memorize those notes.	Reads the textbook, takes some notes using a method that captures the concepts and details. Reviews the notes.
Wastes or misuses a lot of study time. Feels as if there isn’t enough time to “remember it all.”	Uses study time efficiently. Concentrates on remembering the major concepts and details.
May be able to recall information, but often has problems using this information in contexts other than the textbook’s scenario or the way he/she memorized the material.  In tests, tends to get confused if the information is not presented in a manner similar to the way he/she memorized the information.	Can recall information and transfer the information to many different contexts.  Can use the information to respond to different types of questions in tests.
Tends to see “words” on the page rather than ideas and concepts applicable to various situations.	Looks for the basic concepts and uses those concepts as a structure on which to build secondary concepts and details.  Can apply the information to various situations when appropriate.

**ACTIVE LEARNERS ARE SELF-DIRECTED**

Using active learning, you can solve problems, answer questions, formulate questions of your own, discuss, explain, debate, or brainstorm during class.

*CREATIVE AND CRITICAL THINKING*

Active learners think carefully. Thinking is a complex activity involving the brain’s neurons (nerve cells) linking with other neurons as waves of impulses travel from neuron to neuron. Numerous skills comprise the act of thinking. These skills can be grouped into two categories: **creative** and **critical**.

<i><b>ACTIVE LEARNING = THINKING</b></i>	
Creative thinking — examples:	Critical thinking — examples:
Brainstorming	Analyzing
<b>Generalizing</b>	Comparing/Contrasting
Inventing	<b>Classifying</b>
<b>Predicting</b>	Evaluating
Visualizing	Prioritizing

Active learners use both critical and creative thinking.

- Use critical thinking to define the problem.
- Use creative thinking to solve it.

The important thing active learners know is when to use each type of thinking. Critical thinking requires an **objective** viewpoint.

<i>Critical thinkers</i>
• Are honest with themselves
• Can resist manipulation
• When encountering a confusing situation, figure out how to overcome it
• Ask good questions
• Base judgments on facts and evidence
• Look for connections between subjects
• Are intellectually independent

### *OBJECTIVE VERSUS SUBJECTIVE VIEWPOINT*

As you develop, you learn to shift from **visualizing** the world as being centered only around yourself (**subjective**) to seeing it in a way that many people can agree on what it means (objective). Objectivity allows you to communicate effectively and persuasively with others. Using objectivity helps you persuade other people and can gain you allies in making changes.

To support critical thinking, you need an objective viewpoint. You can learn to distinguish between objective and subjective observations and reactions.

- If you tell how an event affected you or how you reacted to an event, you are being **subjective**. For example:
  - His criticism of me was totally unjust and it made me angry.

- That was the funniest movie I've ever seen
- If you tell about an event or relate a fact as anyone might see it, you are being objective. For example:
  - It rained Saturday.
  - Sick children need good medical care.

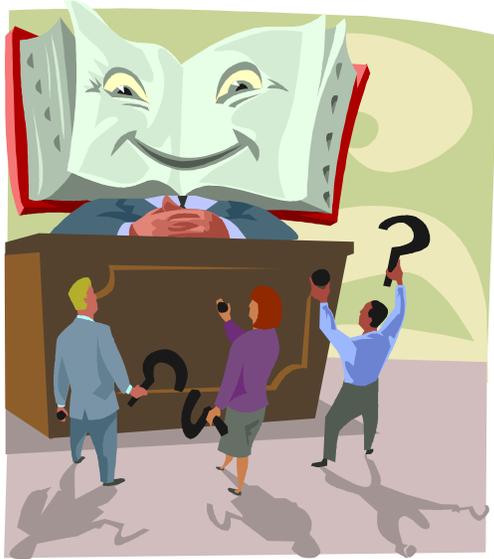
Keep both subjective and objective viewpoints in mind when you are communicating with other people. Both viewpoints are necessary in life, but learn to use them appropriately. Distinguishing between these viewpoints is especially important when you are asking questions, taking tests, or giving presentations.

### *Asking Questions*

Active learners combine critical thinking and objectivity to ask good questions. They ask questions to get a complete picture and to expand their knowledge. You can't get anywhere without asking questions. To get specific facts, ask clear, concise questions requiring an objective answer. To learn opinions and feelings, ask subjective questions.

### *Answering Questions*

Active learners use both types of thinking — critical and creative — to give good answers to questions. You must recognize whether a question is asking you to be objective or subjective in your answer. Recognizing what type of question is being asked will help you identify whether your answer should be subjective or objective.



<p><b>Now what?</b></p> <ul style="list-style-type: none"> <li>• What can I do with the information now that I have the facts?</li> <li>• How do the facts link to other information I have?</li> </ul>	<p>Creative thinking</p>	<p>Subjective</p>	<p>Use the information to form a pattern or structure on which to build other facts.</p>
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<i>Three Question Types</i>	<i>Related Thinking Type</i>	<i>Related Viewpoint</i>	<i>Notes</i>
<p><b>What?</b></p> <ul style="list-style-type: none"> <li>• What are the facts?</li> <li>• What is the evidence or proof?</li> </ul>	<p>Critical thinking</p>	<p>Objective</p>	<p>Facts form the basis of most of your studies.</p>
<p><b>So what?</b></p> <ul style="list-style-type: none"> <li>• What do the facts mean?</li> <li>• What conclusion can I draw?</li> <li>• What else do I need to know?</li> </ul>	<p>Creative thinking and Critical thinking</p>	<p>Subjective and Objective</p>	<p>Use the facts to form an opinion.</p>

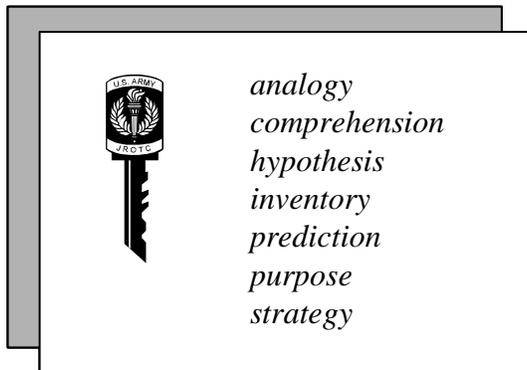
Answering questions is treated in more detail in the Test Taking Tips and Strategies of this textbook. For reading, study skills, and test taking, you apply the objective and subjective viewpoints, critical and creative thinking, and techniques for asking questions.

Form the habit of asking questions and learning from everyone you meet. You may be afraid to ask questions because you think people will believe you are not very smart. Don't be afraid. Only the smartest people know how to ask really good questions, and the people who ask them and get good answers get smarter. So can you.

**CONCLUSION**

Active learning is a method that allows you to participate in class. It takes you beyond the role of passive listener and note taker and allows you to take some direction and initiative during the class. Active learning can encompass a variety of techniques that include small group discussion, role playing, hands-on projects, and teacher driven questioning. The goal is to be part of the process of your own education.

## LESSON 2: READING FOR MEANING — COMPREHENSION STRATEGIES



### INTRODUCTION

Every day you are bombarded with things to read — junk mail, billboards, newspapers, magazines, and books. Sometimes, it is hard to decide what to read and what to throw away. You read for many reasons: to gain information, for entertainment, to pass the time, or to study. If you want to improve your reading skills, read as much as you possibly can. You should read everything interesting — even backs of cereal boxes and comic books will increase your reading speed and **comprehension**. Soon, reading will come easily and it will be more enjoyable. But, do not give up looking for the types of material that you find interesting. All it takes is one good book and you will be enjoying the written word for all it is worth.

Reading is a communication skill that many people find difficult. However, like the other communication skills, practice will make reading easier and more enjoyable. Here are a few guidelines that you can follow which may make reading simple and more pleasurable. These guidelines are outlined below.

### PREVIEWING

Preview (or scan) the material, especially a book, before you begin to read it. Previewing consists of looking over the table of contents, index, and title page. Search for familiar concepts and ideas that the material discusses. Do not spend too much time previewing, but do allow enough time to become familiar with the contents.

### QUESTIONING

After you preview the material, make a list of questions related to the topic about which you are reading. Your preview should help you come up with relevant questions. Make your questions detailed. Remember that you can increase your knowledge by asking questions. Also, your reading will be more directed since you will be looking for specific answers.

The following are three different kinds of questions you can ask to gain better understanding of what you are reading.

1. *Empirical Questions.* These questions ask for information contained in the material that you are reading. They are questions to which the answers are factual. An example of an empirical question is “When did this event take place?”
2. *Value Questions.* These questions reflect values or point of view. Answers to value questions are based on opinion. An example of a value question is “Do I agree with the principles expressed in this book?”
3. *Analytical Questions.* These questions ask for a definition of what we mean by the words used in the question. Often they need to be asked before the other two types of questions are asked. For example, if you were asked, “How much of the material in this lesson did you

comprehend? You would first have to ask the question, “How do you measure comprehension?”

You will use all three types of these questions during your studies.

## READING AND NOTE TAKING

After you have previewed your material and developed questions about the material, you are ready to read. Clear your mind of all personal challenges, open up the book, and begin the first page slowly. Keep a dictionary nearby so you can look up unfamiliar words as you go along. As you read, take notes in the column of the book (if it is your own book) or on a separate sheet of paper. You will be making an **inventory** of the information in the topic.

Schedule breaks during your reading. Do not try to read for a long period of time or you may become bored or sleepy. Also, do not read little sections at a time or you may easily become confused and distracted. Allow yourself at least half-hour intervals of reading time, then reward yourself with a five-minute break. During your break, walk around, stretch, or get a glass of water or a piece of fruit. However, during your break, you must have a lot of self-discipline so that you will return to your reading after the five-minute period is over.

As you progress in school, your instructors will require you to do research, give speeches, and prepare reports on material that may or may not be familiar to you. To complete these assignments, you may have to read as much material on your given subject as you can. Since you are reading for a **purpose** other than enjoyment, it may be helpful to first scan the material, then read it and take notes.

Taking notes on your reading gives you the opportunity to pick out the facts that are important to you. You will also remember what you are reading because you have to translate the material into your own words. Reading combined with note taking is an excellent way to remember important facts and to become familiar with new and challenging material.

## OUTLINING

Outlining is an important part of reading. After you have read through the material once, create an outline. Your outline should capture the main points or ideas and answer the questions that you came up with earlier. If you have a large reading assignment, you may find it easier to outline sections of the material rather than trying to outline the entire assignment at once. You will find outlining a helpful tool for you when it is time to review the material you have read for a test.



## HINTS FOR DIFFICULT READING

Sometimes, you must read about difficult subjects. During times of difficult reading, use the following suggestions to assist you in understanding the material better:

1. Look for key words in your material.
2. Hold a mini-review at the end of each paragraph. When reading a paragraph, you will see that it contains a main idea or topic. Notice that the other sentences support the main idea. If you determine what the main idea is first, you will better understand the concept of the paragraph.
3. Listen as you read the material aloud.
4. Ask an instructor questions about the material.
5. Find a tutor who can help you to understand the material better.
6. Explain what you have read to another person.
7. Take notes while you read the material; make an outline when you finish reading.
8. After reading your material, take a break from it. Work on or think about other projects.
9. Find another book, reference materials, and/or textbooks that cover the same topic. Sometimes other books can describe the same topic and concepts more clearly.
10. Imagine that what you are reading is real. Look at the pictures in the book and develop mental pictures in your mind about the material. Try to imagine that you are a part of them.
11. Keep a dictionary nearby so you can look up unfamiliar words as you read.

## READING COMPREHENSION STRATEGIES

The following reading comprehension strategies will assist you in gaining a better understanding of what you read.

### *DIRECTED READING-THINKING ACTIVITY (DR-TA)*

The DR-TA reading comprehensive **strategy** is used to **predict** or define the author's purposes for writing the material you are reading. When you read, select relevant data, evaluate it, and use it to form predictions of the content of the material based on the information that you acquire. In this lesson, you can predict that the author wants to help you improve your reading comprehension.

### *GIST*

Have you heard the expression, "Did you get the *gist* of the movie?" *Gist* means the main point of the movie. In the GIST reading comprehensive strategy, the letters actually stand for Generating Interactions between Schemata and Text. The strategy asks you to focus on short passages in your reading, three to five paragraphs in length, and create summaries for each passage in a structured step-by-step process. This will help you comprehend, or get the gist of the passage.

### *THINK-ALOUDS*

Think-Alouds help you monitor your comprehension and apply self-correction strategies to get the most out of your reading. Five strategies that can be used during think-alouds are as follows:

1. Develop a **hypothesis** by making predictions.

Example: By reading the introduction in this lesson you can make a prediction that

this lesson is about learning how to become a better reader.

2. Develop images by describing the pictures forming in your mind from the information that you are reading.

Example: When you continue with the lesson, you might picture yourself reading a schoolbook.

3. Link new information with your prior knowledge by sharing analogies.

Example: While reading this lesson, you remember how you became a better football player when you approached each game with a plan. You now apply that **analogy** to becoming a better reader by following the plan in this lesson.

4. Monitor comprehension by verbalizing a confusing point.

Example: Sometimes it can help your comprehension by “talking through” a point in the reading that might be confusing.

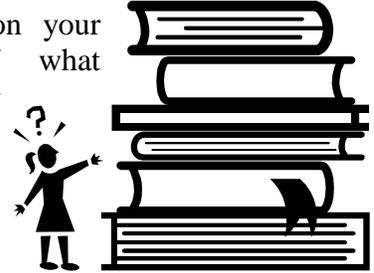
5. Regulate comprehension by demonstrating strategies.

Example: If your predictions about the meaning of this lesson turns out not to be what you originally thought, you can talk it through until you can comprehend the correct meaning of the lesson.

### *QUESTION-ANSWER RELATIONSHIPS (QARs)*

As stated earlier in this lesson, one of the guidelines to help you become a better reader involves asking questions about the material that you have read. The type of question you ask must be based on the information you need to answer the question. In this reading comprehension strategy, you must draw on two different information sources to answer your questions: the information in the material that you read and the information inside your head. For

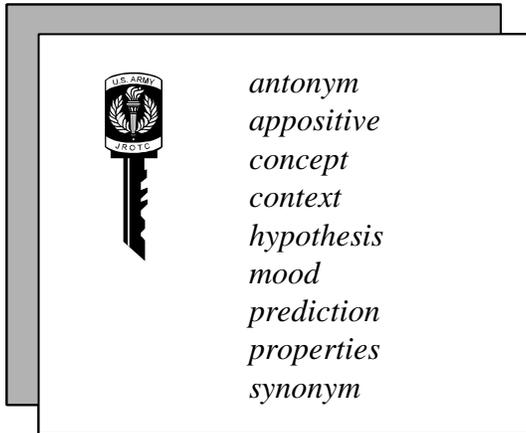
example, you can find the answer to the question, “What are some hints to help you understand difficult reading?” in the lesson material. However, if your question was, “Does one hint work better for you than another?” you would have to rely on your knowledge of what works best for you.



### CONCLUSION

Reading is an essential skill because you use it every day of your life. Do not allow weak reading skills to interfere with the life goals that you have set for yourself. You will need to be a good reader to succeed in school, obtain a job, and advance in the work force. As with your other communication skills, you must practice reading daily in order to improve your reading skills.

## LESSON 3: READING FOR MEANING — VOCABULARY STRATEGIES



### INTRODUCTION

Reading forms the basis of your study skills. An active learner pursues information on his or her own through reading. Class reading assignments provide a chance for you to practice all the skills you have learned from this chapter. This lesson covers vocabulary comprehension.

Studying vocabulary increases word recognition. As you read, you recognize the meaning of words and interpret the information in the text. The more you read, the more new words you acquire and understand. This builds your vocabulary, makes reading become easier and faster, and raises your reading comprehension.

### THREE STRATEGIES TO IMPROVE VOCABULARY COMPREHENSION

#### CONTEXT CLUES

Learning the meaning of words from the **context** of your reading material can be the most useful strategy to increase your vocabulary comprehension. Using the context

that surrounds an unknown word helps to reveal its meaning.

There are several different types of context clues that you can use to find the meaning of a word within the context of what you are reading. They are:

- **Definition.** The author equates the unknown word to a word that is known or more familiar to you.

Example: *Physiology* is a branch of biology that deals with the functions and activities of life or of living matter (as organs, tissues, or cells).

- **Synonyms.** The author pairs the unknown word with a synonym or other closely related words.

Example: The President's wife possessed the traits of a promising leader: wisdom, judgement, and *sagacity*.

- **Comparison Clues.** Often an unfamiliar word is used in a comparison with a familiar word. Your knowledge of the familiar word may help you figure out the meaning of the new one.

Example: The *thatch* in the roof was as likely to burn as any other *straw*.

Another example of a comparison clue is the use of an **appositive**. An appositive uses two adjacent nouns that refer to the same thing. For example, using the words *poet* and *Burns* adjacent to each other in the phrase “a biography of the *poet Burns*” helps define both words.

- **Contrast Clue.** In a comparison clue, you learn that a new word is like a known word. In a contrast clue, you learn that a new word is different from the known word.

Example: At night the street was *pacific*, unlike the crowded, noisy chaos it was during the day.

- **Examples in Context.** You can **predict** the meaning of an unfamiliar word when it is used with an example of a familiar word.

Example: At the show we saw magicians, *ventriloquists*, and other performers.

- **Inferring Meaning from Context.** The author sets a **mood** (ironic, serious, funny, etc.) in which the meaning of the unknown word can be **hypothesized**.

Example: The *tormented* lion roared in pain as he tried to escape from his captors.

### WORD STRUCTURE

Sometimes a word can give clues to the meaning in its structure. Analyzing the word's structure and **properties** is a vocabulary strategy that you can use to figure out the word's meaning. When you approach an unknown word, you can guess at its meaning by breaking down the parts of the word.

Longer words can be some of the most difficult to figure out, but they can be put into categories that will help you.

- Compound words are two known words joined together.

Examples: matchmaker, bookkeeper.

- Words that contain a familiar stem to which an affix (prefix or suffix) has been added.

Examples: *microscope*, *tasteless*.

- Words that can be broken down into regular pronounceable parts.

Example: subterfuge, strangulate.

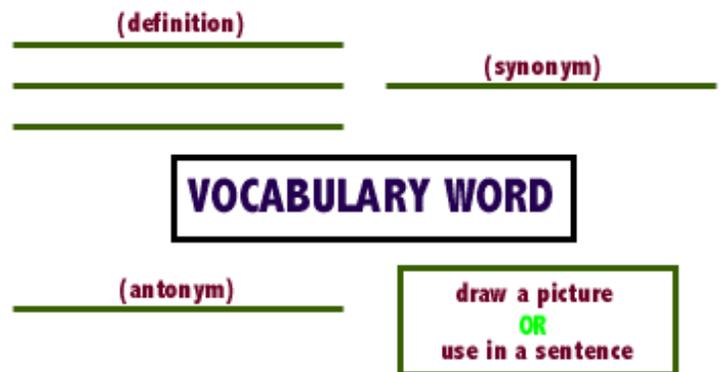
- Words that contain irregular pronounceable parts so that there is no clear pronunciation.

Examples: louver, indictment.

### WORD MAPPING

A vocabulary word map is a graphic organizer that helps you think about new words or **concepts** in several ways.

To build a word map, start by entering the new word in the middle of the map. Then, fill in the rest of the map with a definition, **synonyms**, **antonyms**, and a picture to help illustrate the new word. See the example below.



### VISUAL IMAGING

When you use visual imaging, you think of a word that either looks like or sounds like the word whose meaning you are trying to learn. Thinking of the picture of the look-alike word and/or image will help you remember the word and its meaning.

For example, the word *potable* means suitable for drinking. You can break the word down to a familiar word, pot. You can then associate the word pot with something you can put in it, such as water. When you see the new word *potable* you will picture a pot with water for drinking and remember that the word *potable* means something suitable for drinking.

## INCREASE YOUR VOCABULARY

Learning vocabulary should be a lifetime effort. The best way to improve your vocabulary is to carry a pocket dictionary to look up new words as you encounter them. Or, you can collect a list of new words you encounter to look up at the end of the day.

Some Suggestions Which May Help You
<ul style="list-style-type: none"> <li>• Read. The more you read, the more words with which you will come in contact.</li> </ul>
<ul style="list-style-type: none"> <li>• Use new found vocabulary in your everyday communication (writing, speaking).</li> </ul>
<ul style="list-style-type: none"> <li>• Become familiar with the glossary of your textbooks.</li> </ul>
<ul style="list-style-type: none"> <li>• Become familiar with the dictionary. Understand the pronunciation keys as well as why there are multiple meanings for words.</li> </ul>
<ul style="list-style-type: none"> <li>• Try to learn 5 new words a day. Use them when communicating. This practice will help you retain the words in your long-term memory.</li> </ul>



## CONCLUSION

Learning vocabulary is an on-going process. It continues throughout your entire life. Look at the following examples:

- at the age of 4 you probably knew 5,600 words
- at the age of 5 you probably knew 9,600 words

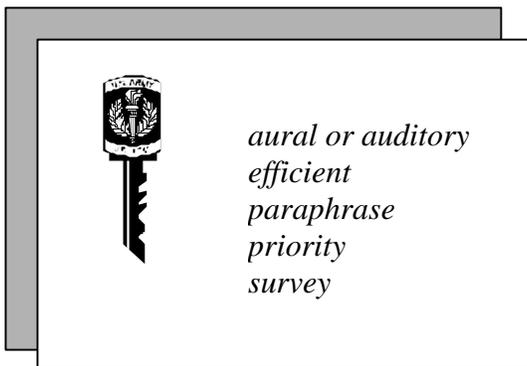
- at the age of 6 you probably knew 14,700 words
- at the age of 7 you probably knew 21,200 words
- at the age of 8 you probably knew 26,300 words
- at the age of 9 you probably knew 29,300 words
- at the age of 10 you probably knew 34,300 words

This demonstrates that the older you become, the more you learn, and the more vocabulary you will know. No matter what your age, you must continue to learn. Words are “symbols” for ideas. These ideas formulate knowledge which is gained largely through words.

[Some of the material used in this lesson was adapted from:

- Virginia Tech — Division of Student Affairs — Cook Counseling Center at [www.ucc.vt.edu](http://www.ucc.vt.edu)
- Mrs. Dowling’s Virtual Classroom at [www.dowlingcentral.com/MrsD.html](http://www.dowlingcentral.com/MrsD.html)
- Context Area Reading: Literacy Across the Curriculum]

## LESSON 4: STUDY HABITS THAT WORK FOR YOU



### INTRODUCTION

The word “studying,” as used here, includes homework assignments along with writing papers, and seeking information to prepare presentations. To write a paper you must perform research, arrive at critical judgements, and put your thoughts into coherent sentences and logical paragraphs. To prepare for a presentation, you perform the same tasks, but are further required to stand and present before others.

Good study skills support:

- **Being efficient.** You are probably busy and you want to get as much out of your study time as possible. You need to study as much material as possible in the amount of time that you spend.
- **Being effective.** You want good results for the amount of time that you spend. You want to take good notes and commit them to memory so you do not have to do the studying over.
- **Taking tests.** The more that you learn the first time when you study, the less you need to do before the test.

- **Demonstrating the basics.** You can produce good written assignments and presentations.

Other skills can be included, like identifying resources, taking good notes, and researching information. These skills support your personal goals and your desire to increase your general knowledge. As an active learner, you do not just use study techniques for homework. If you identify a topic of interest or a career goal not included in your school subjects, you can pursue it. If you want to know about the early attempts of women pilots, a dog breed you want to buy, or how to make ice cream, you can find the information.

Study skills include:

- Comprehending — understanding what you read
- Thinking critically and objectively
- Thinking creatively and subjectively
- Identifying patterns
- Using reference materials
- Identifying resources
- Using time wisely
- Selecting strategies

### DEVELOPING AN EFFECTIVE STUDY STRATEGY

A strategy is a plan of action especially for attaining a goal. The word “strategy” implies a plan. Develop a strategy to use these study skills for homework and schoolwork. Your strategy reflects what you think works for you. If you think a study suggestion will not work for you, try to think what would. For example, is it easier for you to study alone or with a group?

Read the following ten study tips and decide if they are useful to you. There is no right or wrong answer. If you think that some of them will not work for you, try to think of an alternative that appeals to you.

### *HINTS FOR STUDYING*

Once you have decided to study, keep the following hints in mind:

1. Choose a quiet place where you can study alone.
2. Study at one particular time each day. Do not change the time that you study.
3. Avoid noise and distractions.
4. Ask friends and family to support your efforts while you are studying.
5. Learn to say no to distractions: the phone, friends, chores, and TV. Hang a “Do Not Disturb” sign on your door.
6. Allow sufficient time for sleep.
7. Schedule 50 minute blocks of study.
8. Schedule as much study time as possible during daylight hours.
9. Clear your mind of all thoughts when you are trying to remember something.
10. Give yourself a break, include some leisure time.

### *PERSONAL LEARNING PREFERENCES*

You need to find the reading, writing, and study approaches that fit your schedule, your learning style, and your learning needs. The strategy factors and recommendations are probably things all students can agree on. But, where, how, and when you study involves your personal preferences.

Productive studying occurs when you have everything you need when you begin. Being prepared is a signal to your mind that you are ready to study seriously and accomplish your objectives.

### *SQ3R — A READING/STUDY SYSTEM*

You often read textbooks in the same way you read books for entertainment – you read without stopping from the first page to the last page of the chapter. This works when you are reading novels, but it is not likely to help you understand and retain what you read in your textbooks. SQ3R provides a different study system for reading textbooks that will increase your understanding and retention of what you read.

As the acronym suggests, there are five steps. They are:

- **Survey** = Before you read a chapter, do a quick reading to get an overview, look at the headings, chapters, and set up of material.
- **Question** = Establish the purpose of your reading. Ask yourself: Why am I reading this? What am I looking for? When your mind is actively searching for answers to questions, it becomes engaged in learning.
- **Read** = A slow, thorough reading aimed at understanding the content will help find answers to the questions you first raised.
- **Recite** = Reciting material as you go, exercising your **aural** ability to learn, retrains your mind to concentrate and learn as it reads. **Paraphrase** what you have read into your own words.
- **Review** = Reviewing is an ongoing process. Check the accuracy of your recall with the text you have read.

No study technique is guaranteed 100% of the time. It is important to decide when to use each study technique. Different study strategies work best in different situations.

**TIME MANAGEMENT**

Some students seem to study well without trying. How is it that some students easily manage their study time while others cram hopelessly at the last minute? The answer is simple. People who manage their time wisely will plan well ahead and will use the seven communication elements to make it easier on themselves.

Writing down your plan of study makes your responsibilities less overwhelming.

***Manage your time***

- Monitor your time — set priorities on your assignments.
- Reflect on how you spend your time.
- Be aware of when you are wasting your time.
- Use “dead time” (time between classes, waiting for a bus, riding the bus).
- Identify your most productive time.

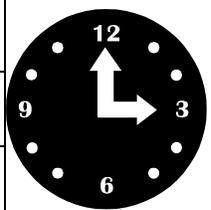
***Keep a “to do” list***

- Write down things that you have to do.
- Decide **priorities** — What to do at the moment, what to schedule later, what someone else can do.
- Check off items you have done to give yourself a sense of completion.
- The satisfaction of “crossing off” the completed task can yield a sense of accomplishment and reward.

***Use a planner calendar (daily/weekly/long term planner)***

- Use a planner so you can always plan ahead.
- Enter dates for course quizzes, exams, important papers, project deadlines, holidays, breaks, and study days.
- Write down assignments, appointments, classes, errands, and meetings.
- Always check the next day’s schedule. Go to sleep knowing you are prepared for tomorrow.
- Review course work each week.

Post your calendar and study plans in your study area. Chart your progress and check off finished tasks. Ask yourself the following questions.

<b><i>Check up</i></b>	
Am I using my time to my best advantage?	
Am I studying when I planned to study?	
Are there areas where I can use my time more efficiently?	

**MAKING THE MOST OF CLASS TIME**

Attending classes takes a large part of your day. Here are a few hints to help you get the most out of the time that you spend in class.

- Be prompt.
- Be prepared. Do your homework and review your notes before class to prepare to ask questions. Prepare for discussion courses before class.

- Ask your questions about the last assignment before the teacher starts the new class.
- Attend with attention — avoid distractions, concentrate as the instructor covers the content, listen before writing.
- Take notes.
- Be sure you understand homework assignments before leaving the class.
- Schedule time to go over the classroom material after class.

### *LISTENING*

Preparation before class makes listening in class easier. Know what to expect so that you will know what to listen for. Good listening skills are an important part of your life. If you listen well, you will improve your study, speaking, and writing skills. Effective listening enables you to comprehend information then process it to formulate new ideas and to make sound decisions — essential characteristics that are necessary for communicating properly.

### *NOTE-TAKING*

Good reading and listening skills are the basis for effective note-taking. Developing good note-taking skills takes lots of practice and experimenting until you find a style that you like.

Concentrate in class to get the most out of note-taking. When you need to clarify a point, ask questions. Be specific. Leave blanks for words, phrases, or ideas that you missed, and fill in the gaps later. If the teacher emphasizes or writes a special point on the blackboard, put it in your notes. Always record the teacher's examples.

### *NOTE-TAKING HINTS*

Here are a few note-taking hints that can help you find a comfortable method:

- Do not try to write down every word that the speaker says.
- Condense the information.
- Listen for key phrases and transitions such as:
  - “the four causes were”
  - “to sum up”
  - “therefore”
  - “in conclusion”
  - “in summary”
  - “this is important”
  - “remember”
  - “memorize”
  - “you should know.”
- Listen for information that the speaker repeats; it is probably important.
- Words such as “because,” “in addition,” and “later” are normally keys to relationships that the speaker is presenting.
- If you miss something, ask the speaker to repeat it.

Pay as much attention to note-taking in the last few minutes of class as you would during the beginning and middle of the class. Reading assignments before class, being alert in class, and reviewing your notes after class will help you to perfect your personal note-taking style.

## **CONCLUSION**

Becoming a good student does not happen automatically or overnight. It requires time and patience. Studying is a process that is learned through trial and error. You have to discover a strategy that works for you and adapt it for different learning situations. Most importantly, make studying a priority.

## LESSON 5: TEST TAKING TECHNIQUES



*allocate*  
*compare*  
*contrast*  
*criticize*  
*enumerate*  
*inference*  
*interpret*  
*justify*  
*prove*

### INTRODUCTION

Two essentials for test taking are knowledge and attitude. You are in control of these two essential factors.

**Knowledge** — You are prepared. As an active learner, you are most likely knowledgeable about the topics on which you will be tested. You are studying all the time to gain that knowledge about the changing topics as you advance in your studies.

**Attitude** — You are calm and cool. Your attitude can help you do well on a test. Work on your attitude before going into the test.

You also need knowledge about another area — test-taking techniques. Once you are knowledgeable about these techniques, you don't have to study them again.

Test taking techniques include:

- Having a strategy for taking the entire test.
- Recognizing characteristics of specific question types and directions.

You know the material or you don't. Being nervous won't improve your performance. Being nervous can cause you to forget the material and lower your grade. When you are tense and anxious, you drain energy away from your test performance. Tell yourself that you will do well. Repeat positive statements to yourself.

Some sample positive statements follow:

- I can keep my cool because I studied. I'll put that information together in inspired new ways that help me shine.
- Tests are challenges, but I can do it.
- I can keep calm and think logically.
- I planned my work so I didn't have to cram.
- I'll stay calm and let my memory work.
- I think extremely well during tests.

### PREPARING FOR TESTS

The best preparation for taking tests is to keep up with assignments. Complete all study assignments when they are assigned, take notes in class and while studying. Keep a copy of all previous study materials and all graded work.

Review your class notes each day. At the end of each week, review all reading assignments.

The old expression — “*a picture is worth a thousand words*” — means that visual pictures impress the memory better than verbal thoughts. For example, students who routinely visualize what they read in books perform better on tests.

When a test is announced or anticipated, identify the material that will be covered in a test. For best test taking results, you should create a study plan for yourself. Determine what review material you have and how much time you have to study for the test and make a schedule for yourself. Divide the study material into small, easily completed chunks. For instance, during one study period, review your class notes. In the next study session, review your homework.

Dividing your study time can help you overcome any fears you may be experiencing. Familiarize yourself with test question styles and directions. Keep calm and cool; think positively. And, **allocate** your time carefully.

On the day of the test, follow these tips to help you achieve your best results.

- Arrive early.
  - Take your seat and breath deeply.
  - Let go of negative feelings about the test.
  - Pace the test by looking over the entire test and allotting your time, or look over as much of the test as you are allowed to see at one time.
  - Read the test directions slowly and carefully before you answer the first question. Reread the directions if necessary.
  - Pick the parts of the test that you know and do those first. Answer the easiest questions first. Don't spend a lot of time on the questions you need to figure out.
  - Keep an eye on the time. Assess how much time you have to finish unanswered questions.
  - Look for answers to the hard questions in other parts of the test.
- When you are unsure of the correct answer, try to eliminate the obvious wrong choices.
  - Review your test answers before you turn them in.

## TAKING THE TEST

Tests are comprised of two main components: the directions or directives, and the test questions. You just learned that you should review the test directions to help you answer questions correctly, and that you should answer the easiest questions first. The following material will introduce you to several different question directives, followed by some helpful information regarding test question formats.

### *DIRECTIVES*

The following is a list of test directives and definitions. Test directives tell you how to answer questions.

- **Compare** — Examine qualities or characteristics to discover resemblances. “Compare” is usually stated as “compare with.” You are to emphasize similarities, although differences may be mentioned.
- **Contrast** — Stress dissimilarities or differences of things, qualities, events, or problems.
- **Criticize** — Express your judgment on correctness or merit. Discuss the limitations and good points or contributions of the plan or work in question.
- **Define** — Definitions call for concise, clear meanings. You must keep in mind the class to which a thing belongs and whatever differentiates the particular object from all others in the class.

- **Describe** — In a descriptive answer, you should recount, characterize, sketch, or relate in narrative form.
- **Diagram** — If you are asked to diagram, you should present a drawing, chart, plan, or graphic representation in your answer. Generally, you are expected to label the diagram and in some cases add a brief explanation or description.
- **Discuss** — This word directs you to examine, analyze carefully, and present considerations both for and against the problem or topic involved. This type of question calls for a complete and detailed answer. As you discuss, you may compare, contrast, define, and describe.
- **Enumerate** — This word specifies a list or outline form of reply. In such questions, recount one by one the points required.
- **Evaluate** — This word specifies a careful appraisal of the problem, stressing both advantages and limitations. Evaluation implies authoritative and, to a lesser degree, personal appraisal of both contributions and limitations.
- **Explain** — In explanatory answers, you must clarify and interpret the material you present. In such an answer, state “how or why,” reconcile any differences in opinion or experimental results, and, where possible, state causes. Make plain the conditions that laid the foundation for the topic.
- **Illustrate** — This word requires you to explain or clarify your answer to the problem by presenting a figure, picture, or concrete example.
- **Inference** — When asked to infer, you are required to make a determination of a given problem based on the proposition, statement, or judgment considered as true within another problem.
- **Interpret** — An interpretation question is similar to one requiring explanation. You are expected to translate, solve, or comment upon the subject and usually to give your judgment or reaction to the problem.
- **Justify** — When you are instructed to justify your answer, you must **prove** or show your grounds for decisions. In such an answer, present evidence in a convincing form.
- **List** — To list is to enumerate. You are expected in such questions to present an itemized series or tabulation. Such answers should always be given in concise form.
- **Outline** — An outline answer is organized description. Give the main points and essential details. Omit minor details. Present the information in a systematic arrangement.
- **Prove** — A question that requires proof is one that demands confirmation or verification. Establish something with certainty by evaluating and citing evidence or by logical reasoning.
- **Relate** — If you are asked to relate or show the relationship, emphasize the connections and associations in descriptive form.
- **Review** — A review specifies a critical examination. Analyze and comment briefly in an organized sequence upon the major points of the problem.
- **State** — In questions directing you to specify, give, state, or present, you are called upon to express the high points in brief, clear narrative form. Omit details and illustrations or examples.
- **Summarize** — To summarize, give in condensed form the main points or facts

of the problem or topic. Omit all details, illustrations, and elaboration.

- Trace — To trace, give a description of progress, historical sequence, or development from the point of origin. Such narratives may call for probing or deduction.

### *QUESTION FORMATS*

Tests are used to determine how much you know about a given subject. The questions are used to elicit response and come in many forms. Typically, questions can be objective or subjective in nature. Objective questions, such as multiple-choice and binary-choice test your ability to recall, compare, or contrast information and to choose the right answer among several choices. The subjective question, such as an essay question, demands the same information recall, but asks that you use critical-thinking strategies to answer the question, then organize, write, and revise a written response.

This lesson covers five question formats:

- Multiple-choice
- Binary-choice
- Short answer
- Essay
- Reading Comprehension.

Each question format is described with tips for answering the question format.

#### ***Multiple-Choice***

Multiple-choice questions are the most popular format. Typically, you are given four possible answer choices and are asked to select the best answer, or most appropriate response.

Read the question carefully and determine if you are to select one correct response or select several correct responses.

An answer choice of “All of the above” is typically the correct answer. If more than one choice is correct, “all of the above” is probably correct as well.

If you don’t know the answer immediately, try to eliminate obviously incorrect answer choices. Also, you can check to see if any other question has the answer to your question or a clue as to the correct response.

#### ***Binary-Choice***

Binary-choice questions are really multiple-choice questions with only two choices. Typical answer choices for this question format are the True/False, Yes/No, and Agree/Disagree.

Pay attention to qualifiers and negatives. Qualifiers like “never,” “always,” “none,” and “only” usually indicate a false statement. They require the question statement be 100 percent correct to be true. Qualifiers like “sometimes,” “often,” “generally,” and “frequently” usually indicate a true statement.

Negative words such as “can’t” and “no” can be confusing. Try to evaluate the statement without the negative word.

#### ***Short Answer***

Short answer or fill-in-the-blank questions require you to know (recall) the answer whereas binary-choice and multiple-choice questions test your ability to recognize (select the correct choice amongst several possible choices).

Look for grammatical clues within the question to help you determine the correct answer. If you can think of several correct answers, let your teacher know and you may be rewarded with a clue as to the answer he or she is looking for.

### ***Essay***

Remember that the essay question is a subjective question that demands information recall, and also asks that you use critical-thinking strategies to answer the question, then organize, write, and revise a written response.

Start by identifying how much time you can devote to answering the question. Jot down key words or ideas so you can retrieve them later when writing your essay.

Begin with a strong sentence that clearly states your essay's main theme. Follow that with the key points that you will discuss. Expand upon your key points by writing a paragraph for each point.

### ***Reading Comprehension***

In reading comprehension questions, you read a short paragraph and answer questions about it. Comprehension is especially critical during test taking. You must read and interpret correctly the test directions, the questions, and the answers. Questions can relate to the reading's main theme. Questions may also ask for general or specific information about the reading material.

You will find it helpful to read the questions before you read the text.

## **CONCLUSION**

Remember to divide your study time; keep calm and cool; and think positively.

By understanding test taking techniques, keeping a positive attitude, overcoming your fears, and following the tips for answering different questions formats found in this lesson, you will improve your test-taking ability.

## COMMUNICATION SKILLS

### LESSON 1: THE COMMUNICATION PROCESS



*audience analysis*  
*channel*  
*data*  
*feedback*  
*mixed messages*  
*noise*  
*nonverbal*  
*receiver*  
*sender*  
*setting*  
*verbal*

#### INTRODUCTION

Every day, one of your main activities is communicating with others. You communicate at home, at school, with your friends, and in the community. For some of you, you are also communicating in a job environment. For adults, communication at work can be the difference between success and failure.

#### THE NEED FOR COMMUNICATION

You fulfill many different needs through communication, and effective communication can give you considerable pleasure. It pleases you when you have a stimulating conversation with a friend. You are also pleased when you participate in a group discussion that leads to a solution for a problem. You are happy if a letter you write is answered, and you are told that the recipient took what you said seriously.

Sometimes, however, communication does not work, and you end up feeling frustrated.

You have a disagreement with a friend and do not know what to say to fix it. There may be certain subjects your parents do not want to discuss at all. You write a message to someone and that person completely misunderstands what you said.

Even though we have been communicating since birth, we are not always as effective as we could be. Effective communication seems to be a problem for many people.

All communication depends on understanding others and having them understand you. Much of your communication is intended to influence what people think and feel. Most of the time you want someone to take some action as the result of your communication. You want a friend to spend vacation time with you; you want your friends to like each other; you want your parents to give you permission to go somewhere.

Perhaps your most important need is to maintain and improve your relationships with others. You use communication to discover other people's needs and to share your own needs with other people.

Our need for communication is important in all areas of our lives. To live is to communicate.

#### A DEFINITION OF COMMUNICATION

Communication is a process in which people are able to transfer meaning among themselves. The communication process

allows people to share information, ideas, and feelings. This is the transfer of meaning. Where no meaning is transferred, no communication has taken place.

## SEVEN COMMUNICATION SKILLS

There are many ways to communicate. Your ability to read, listen, think, study, write, remember, and speak are the seven communication skills that will help you to express your feelings, knowledge, and ideas. Communication is innate within everybody; from the cries of a baby, to the smile of a friend, to the handshake of your doctor. Everybody uses communication skills differently. In JROTC, as in your other high school courses, you will have many opportunities to improve these skills.

## ELEMENTS OF COMMUNICATION

The communication process is made up of various elements. These elements are communicators (**senders**), messages, **receivers**, **channels** (written words, sound, sight, radio, television), **feedback**, **noise**, and **setting**.

- The communicator is the originator of the message. The speaker, writer, artist, and architect are all communicators.
- The message is made up of ideas, **data**, and feelings the communicator wants to share. The medium may be a speech, essay, painting, or building.
- The channel is the route traveled by the message as it goes between the communicator and the receivers. Airways may provide the channel for communicating the speaker's message; lightwaves are the channels for the writer, artist, and architect.
- The receiver is one or more individuals for whom the message is intended. The

communicator must gain the receiver's attention to have effective communication.

- Feedback allows communicators to find out whether they are "getting through" to the receivers. You get feedback from your instructors, your parents, and your friends.
- Noise is interference that keeps a message from being understood. Physical noise keeps a message from being heard. For example, the physical noise of a loud television program may interfere with reading a letter. Psychological noise occurs when the communicators and the receivers are distracted by something. For instance, the psychological noise caused by hunger can prevent concentration.



## COMMUNICATING EFFECTIVELY

Once you understand the process of communication, you can begin to understand why communication does or does not work.

In an ideal situation, the message is perceived in the way it was intended. For example, you write an apology to your friend for a mistake that you made. If the friend accepts the apology, the communication worked. If the friend was offended by your

message, and the apology was not accepted, then the communication did not work.



Your communication may not have worked due to a problem with the message, the channel used may not have been the best choice, or psychological noise may have interfered. Asking the right questions about why communication did not work is the best way to improve communication skills.

Most of us already have considerable communication skills. We have been sending and receiving **verbal** and **nonverbal** symbols all our lives.

- Verbal symbols utilize the words in a language to stand for a particular thing or idea.
- Nonverbal symbols allow us to communicate without using words. Facial expressions and gestures are examples of nonverbal symbols.

Nevertheless, we have all had times when we have not communicated as effectively as we should. You may have received a lower grade on a paper than you expected.

You may have unintentionally hurt someone's feelings. An instructor may not have understood a question when you asked it in class.

You can work to increase the likelihood of effective communication. There are certain basic steps to follow when preparing any oral or written communication.

The six steps listed are not always used in sequence, nor are they exclusive of each other. You will want to tailor them to your own style and approach, and you will not use all these steps each time you communicate. These steps will help you focus your attention on how to increase your effectiveness as a communicator.

#### *STEPS IN EFFECTIVE COMMUNICATION*

1. Analyze your purpose and your audience. Make sure you know why you are communicating and to whom you are addressing your ideas. Knowing about the receivers of your communication is called an **audience analysis**.
2. Conduct the research. Use a variety of resources.
3. Support your ideas. Find facts, figures, statistics, and explanations that give credibility to your ideas. The more you can back up your ideas, the more your audience will understand what you are communicating.
4. Get organized. Use an outline or notes to organize your ideas into a logical sequence. A logical sequence helps your audience follow along with you.
5. Draft and edit. Use language to your best advantage. There may be many ways to express the same idea. Look for the best way. If you are unclear about what you are saying, you may be sending **mixed messages**.

6. Get feedback. Test your work with one or more people. Testing your communication with others will ensure that you are not the only one that can make sense out of what you are saying.

## **CONCLUSION**

Communication is how we transfer ideas among ourselves. Communication does not always work. Your message has to be perceived the way you intended it to be perceived.

You must understand your audience and your purpose. You should conduct research and support your ideas. You should decide on an organization for your information and outline your ideas.

Follow the basic steps and people will pay attention to your ideas and be impressed by your ability to express yourself.

## LESSON 2: BECOMING A BETTER WRITER



*autobiography*  
*bibliography*  
*body*  
*conclusion*  
*entice*  
*information cards*  
*introduction*  
*plagiarism*  
*source cards*  
*supplemental material*  
*thesis statement*

### INTRODUCTION

Writing is one of the acts or processes used to exchange ideas. When all is working well, when sentences are grammatically correct, when words are carefully chosen, when paragraphs are soundly structured, communication is usually successful. Someone or some people will read your sentences, understand your meaning, and respond accordingly.

Writing is one of the most important means of communication, so your writing must be simple, readable, and understandable. With a little practice and desire, writing is an art that anyone can master. Your writing will take many forms. In school, you will often have to write papers for your classes. These may include term papers, biographies, or an **autobiography**.

In order to write well, you must first define the purpose of your writing, organize your thoughts, and make an outline — now, you are ready to write. This process is not

always easy, but it is easier than you may think. All it takes is the desire to write clearly, to hard work, and to follow a few guidelines.

### THE BASICS OF WRITING

Writing a paper is a lot like writing a speech. You must first decide upon a topic, research the topic, and organize your material. Once you have organized your material, you are in a position to begin writing your paper. The elements of a paper are also similar to those of a speech. You should have an **introduction**, **body**, and a **conclusion**. As you continue to read, you will see how similar these elements really are to a speech.

### RESEARCH

Research is probably the most important part of your paper. When you begin your research, be determined to find all the information you can. However, be sure that the information you select is accurate and relevant to your topic.

You may want to start your research at the school library. Carry 3X5 cards with you so that you can use them as **source cards** or **information cards**. Then, for each book or reference that you find on your topic, use the source cards to correctly record the title, author or authors, publisher, copyright date (usually just the year), and place of publication (city and state). Not only do these source cards help you to keep track of where your information came from, but they are the basis for your **bibliography** when you finish your paper. Later you can organize your bibliography by alphabetizing your source cards. Give each source card a code such as a number or letter. Place the code in the upper left-hand corner.

After you have your books, magazines, articles, etc. recorded on source cards,

begin recording notes from these books on new 3X5 cards, which become your information cards. Write your code numbers from your source cards on the upper left-hand corner of your information cards so that you can identify which notes came from which publication. Also, write on your information cards the number of the page on which you found the notes.

After researching your topic at the school library, you may want to venture out to other libraries, such as the city or county library, looking for **supplemental materials**. When you have finished this library work, do not stop your research. Contact experts on your subject and set up interviews with them. This can be exciting because you are gathering more information for your paper and you are also meeting new people and establishing contacts. Perhaps you can also look for reliable sources on the Internet.

Although research is sometimes a frustrating process, it is important to stick with it. Be curious and always open to new ideas. Through your research, you will discover the main theme of your paper and experience one of the joys of learning.

### *ORGANIZATION*

Once you have completed your research, you should be able to develop the main point of your paper. This main point is like the specific purpose of a speech. The main point of a paper is called a **thesis statement**.

Now you are ready to develop your outline. Take your information cards and place them in related groups. Arrange the related groups in the order in which you think they should logically appear in your paper. Experiment with different types of order or arrangements. Rearrange and regroup them as often as necessary. If you have time, put your

cards away for a night and rework them the next day. Remember, this outline does not have to be exact. You can still be flexible at this point. After all, you are looking for the best way to present the material you collected.

Finally, when you finish arranging your information cards based on your initial thoughts about the topic, begin writing the outline. The outline allows you to organize your thoughts and record them on paper. The most traditional outline is the Roman numeral/capital letter style outline. However, you do not have to use this type. If you are more comfortable with another type of outline, by all means, use it. Your outline (any style) is far too important to confuse matters by using an unfamiliar or cumbersome format.

### *WRITING YOUR PAPER*

After completing your research and organization, you are ready to begin writing the paper. As mentioned earlier, your paper needs an introduction, body, and a conclusion.

#### *Introduction*

Your introduction grabs the reader's attention and introduces the topic. It is important to **entice** your readers into your paper, so make sure you have a catchy, exciting, and well-organized introduction.

#### *Body*

The body of your paper is where you explain and document what you know about the subject based on your research. Tell the readers your main points (which should support your thesis statement). Then, support these main points with examples and facts.

Use one idea per paragraph. Your information cards should help you do this and

your outline should help you to stay organized and on track with your topic. The first time you write the paper should be nothing more than a rough draft. Therefore, do not worry too much about grammar and spelling; you will be revising this draft — maybe several times — so worry about those details later. In your first draft, you are still looking at presenting the information in the most logical order. Then, in later drafts, you can rearrange the order, as necessary, add or delete information, and correct the grammar and spelling.

### **Conclusion**

Your conclusion is the last opportunity for you to tell the readers what you want them to remember. Use this space to pull your paper together and to leave the reader with a sense of accomplishment.



### **REWRITES**

After you have completed your first draft, rewrite and revise your paper. Then, rewrite your paper again, if time permits. Rewriting is a major part of the development

of your paper. *Do not ignore this step!* Try to leave at least one day between revisions. When you leave time between rewrites, you are able to review your work with a fresh state of mind. Use rewrites to reword your material and to polish your grammar and spelling.

Have others review your work. They can help find errors and clarify comments.

### **PLAGIARISM**

**Plagiarism** is illegal. It is the stealing of someone else's work or ideas without giving them the proper credit or, in some cases, obtaining permission to use the material. You can commit plagiarism by simply, and in many instances unintentionally, copying someone else's ideas, words, or pictures/graphic illustrations.

In order to avoid plagiarism, always give the appropriate credit to every resource you used when writing the paper. The most common ways to give credit are to use footnotes, endnotes, quotation marks (mentioning the source), or a bibliography. Refer to your English textbook or to a writing style handbook for suggestions on formats. Whichever system you use, you will find the information on your source cards very helpful.

### **PRINCIPLES OF WRITING**

As a writer, there are six principles that you should use as a guide when writing. By adhering to these six principles, you will be able to keep your writing focused on the topic, written to the correct target audience, concise, complete, logically arranged, and grammatically correct. These principles are: audience level, accuracy, brevity and completeness, clarity, coherence, and unity.



### *AUDIENCE LEVEL*

When you write, you should do so for a particular audience — just like you would for a speech. Although most of your writing in high school will be assignment-related, you may have the opportunity to write articles for the school paper or yearbook, reports for an after school club, or flyers for your after school job. Because of the different audiences these items would reach, you would not write them in the same manner. Instead, you would tailor them to each audience.

Additionally, be careful not to write at too high or too low of a level for your audience. This may seem hard to do, but it is extremely important. The purpose of your writing is to explain your topic or to present information, not to prove how much you know or how little you may think your reader knows about the subject. It is not your job to criticize, judge, or alienate the audience.

### *ACCURACY*

Your work must be free of factual and mechanical errors. It should represent only essential and accurate facts. Correct use of grammar, punctuation, and spelling will also contribute to clarity and understanding.

### *BREVITY AND COMPLETENESS*

Include in your paper only the information that is essential or pertinent to cover the topic. In other words, keep your writing brief and to the point. Do not stray from your main point — that only distracts the reader and could take attention away from your desired outcome or conclusion. To cover a subject completely while keeping the length of the paper to the absolute minimum requires careful analysis and many rewrites. However, never sacrifice clarity or completeness just to gain brevity.

### *CLARITY*

You must make a special effort to keep your writing clear, crisp, and fully understandable. Ensure that your readers understand your intention. Do not try to impress them with your vocabulary. The best way to obtain clarity in your writing is by practicing the following guidelines:

- Use short sentences.
- Avoid explaining something that the reader already knows.
- Use simple, familiar words to describe objects. Also, avoid vague words that do not relate precisely to your topic.
- Use verbs in the active tense. For example, instead of “The ball was thrown by John,” write “John threw the ball.”
- Avoid long phrases when one or several words will do and avoid wordiness (or the use of unnecessary words). For example, use “now” instead of “at the moment.”
- Select words and phrases that express your exact meaning and can have only one interpretation.

- Use words that bring an image to mind. If a reader can picture something, he or she will have a better chance of understanding what you are trying to write.

Because of the importance of writing grammatically correct work, common errors in grammar are described in detail later in this lesson.

### *COHERENCE*

Coherence is the logical development and arrangement of a subject. You can achieve coherence by thinking the subject through and seeing it as a whole before you arrange the parts logically and begin writing. Using your outline and rewrites will help you to achieve coherence.

### *UNITY*

Your writing must adhere to a single main idea. Apply this principle not only to each sentence and paragraph, but to the entire paper.



### **GRAMMATICAL ERRORS**

When a piece of writing is flawed, the process of communication breaks down; the

transfer of information stops as the reader tries to translate your meaning.

There are many flaws that can damage your writing; among the most serious are ungrammatical sentences. Grammatical errors include fragments, run-on sentences, subject/verb agreement, shifts in person, number, tense, voice, tone, and faulty pronoun reference.

### *FRAGMENTS*

A sentence is an independent clause, which can stand alone. It has a subject (tells what or whom the sentence is about) and a predicate (tells what the subject does). A fragment is a dependent clause (a word group that lacks a subject or a predicate).

- Here is an example of a fragment:  
“in the basement and in the attic”
- Here is an example of a complete sentence:  
“We searched for the missing book in the basement and the attic.”

### *RUN-ON SENTENCES*

A run-on sentence occurs if two or more independent clauses are joined without a conjunction (joining word such as “and” or “but”) or appropriate punctuation.

- Here is an example of a run-on sentence:  
“Organize a résumé according to your education, work experience, career objectives, and recreational interests review your needs carefully before stating a career objective.”
- Here is an example of the correct way to write this:  
“Organize a résumé according to your education, work experience, career

objectives, and recreational interests. Review your needs carefully before stating a career objective.”

In the second example, the run-on sentence is written in two complete sentences.

- Sometimes a conjunction is used to connect two related clauses.

“A good résumé will include carefully chosen detail, *and* it will create an impression of depth without overwhelming the reader with your life history.”

### SUBJECT/VERB AGREEMENT

Subjects and verbs agree with one another in number (singular or plural) and person.

Agreement as to number means that the verb may have a different spelling, depending on whether the subject is singular (one) or plural (more than one).

- Here is a singular example:

“The musician *is* a professional.”

- Here is a plural example:

“The musicians *are* professional.”

The verb in the above examples changed when the subject went from singular to plural.

Person is a term that indicates whether the subject is the one speaking (first person); the one spoken to (second person); or the one spoken about (third person).

- First person      I walk to the store
- Second person    You drive to the store
- Third person      Joey runs to the store

### SHIFTS

A shift, as defined in grammar, is an abrupt change of perspective within a sentence (or between sentences).

- A shift in person would be:

“People are tempted to go off *their* diets when *we* go on vacation.”

This is a shift from third person (“people”) to first person (“we”) within the same sentence.

- A shift in number would be:

“If the *books* belong to the boy, return *it*.”

The previous sentence is a shift from plural (“books”) to singular (“it”) within the same sentence.

- A shift in tense changes when the time of an action changes (past, present, future). An example of a shift in tense would be:

“Mrs. Hopkins *arrives* at her desk and *went* directly to work.”

The sentence above is a shift from present tense (arrives) to past tense (went).

- Voice is a term that indicates whether the writer has emphasized the doer of the action (active voice) or the receiver of the action (passive voice). Avoid shifting voices within a sentence.

“We went to the post office (active) and the letters were mailed (passive).”

One way to write this using only active voice is:

“We went to the post office and mailed the letters.” “We” took the action of going to the post office and mailing the letters.

- A shift in the tone of your writing can also confuse your readers. Tone refers to the quality of language (word choice, sentence structure) that creates for your

reader an impression about your work and you, the writer. Your tone may be formal or informal. Once you adopt a certain tone, use it consistently.

“In your letter of May 16, 2001, you requested that we pay the balance of our bill, in the amount of \$25.31. You know, if you people would get your act together and correct the problems we told you about, maybe you would get your money.”

The paragraph above shows a shift from formal to informal.

### FAULTY PRONOUN REFERENCE

A *noun* is a word that names a person, place, or thing. A *pronoun* is a word used in place of a noun. Pronouns help avoid unnecessary repetition in our writing.

- Repetitive:

“Although Seattle is damp, Seattle is my favorite city.”

- Using a pronoun:

“Although Seattle is damp, it is my favorite city.”

Pronoun reference is a term that describes the relationship between a pronoun and its noun.

Noun ← Pronoun

*The gentleman* bowed to *his* partner.

In order for a pronoun to function correctly, it must refer clearly to a well-defined noun, as in the example above. *His* can refer to only one noun in the sentence, *gentleman*. When a pronoun does not refer clearly to its noun, readers will be confused.

- Incorrect:

“Mr. Jones extended an invitation to Mr. Smith after *he* returned from *his* trip.” It is not clear who took the trip.

- Correct:

“After *Mr. Jones* returned from *his* trip, he extended an invitation to Mr. Smith.” Here, Mr. Jones clearly was the traveler.



### WRITING MORE CLEARLY

Writing a grammatically correct sentence is no guarantee that you will communicate effectively. Grammatically correct writing can still be unclear. Once you are confident that your sentences are grammatically correct, examine your choice of words.

Have you expressed yourself clearly? Have you avoided using jargon that may make your meaning unclear? Have you refrained from overusing *to be* or *to have* as main verbs? Have you chosen the better voice for your verb? Learning about these choices and thinking about them when you write, will improve the clarity of your writing.

*WORDINESS*

Delete words, phrases, and clauses that do not add directly to the meaning of a sentence. Try to be less wordy and more to the point. Say your sentences to yourself with fewer words and see if the meaning stays the same. If so, use the version with fewer words.

- Wordy sentence:  
“Under all circumstances and in every case, always check the oil level in your car when you stop at a service station.”
- To the point:  
“Always check the oil level of your car when you stop at a service station.”

*JARGON*

Jargon consists of “shorthand” words, phrases, or abbreviations that are known only to a relatively small group of people. You should avoid jargon for two reasons.

1. Your audience may not understand what you are saying or writing.
2. Your message will be unclear when you rely on overused phrases as a substitute for original thinking.

Always choose your words carefully and know what they mean. Do not depend on phrases that add syllables but not substance.

- Jargon-Filled:  
Semi permanent dyadic relationships provide the adolescent with the opportunities for trialing that make for a more secure union in the third and fourth decades.
- Jargon-Free:  
Going steady when you are a teenager helps prepare you for marriage later on.

*OVERUSE OF “TO BE” AND “TO HAVE”*

Relying too heavily on forms of “to be” and “to have” as main verbs will diminish the effectiveness of your sentences. These words lack force as main verbs. These words do not establish for a reader the clearest possible relationship between the subject of a sentence and its predicate. When possible, substitute a verb that more clearly expresses action than “to be” or “to have.”

- Weak  
“Ms. Smith was at the office door.”
- Improved  
“Ms. Smith stood at the office door.”

*ACTIVE AND PASSIVE VOICE SENTENCES*

Sometimes the same sentence can be written in more than one way. Consider the following:

- “The lawyer had won the case.”
- “The case had been won by the lawyer.”

The first example emphasizes the lawyer. It tells you something about the lawyer. The lawyer is the subject of the sentence. Since the lawyer is the one that did something (won the case), and you are writing about the lawyer, this is called active voice.

The second example emphasizes the case. It tells you something about the case. The case is the subject of the sentence. Since the case is the object that had something done to it (it was won by the lawyer), and you are writing about the case, this is called passive voice. Here is another example:

- Active: “Babe Ruth hit the ball.”
- Passive: “The ball was hit by Babe Ruth.”

The passive voice is less direct and less forceful than the active voice. Use the active voice whenever possible, unless it does not convey the meaning you intended.

## ORGANIZING A PARAGRAPH

A paragraph is a collection of sentences logically arranged and focused on a narrowly defined topic. Like sentences, paragraphs rarely occur alone. They are parts of larger units: the business letter or the memorandum or the essay for school.

Learning about the composition of paragraphs is important in that the success of any larger form is entirely dependent on the success of its component parts. A letter will fail to communicate if any of its paragraphs is poorly structured or poorly developed.

### *THE TOPIC SENTENCE*

The topic sentence tells the reader the main idea of the entire paragraph. The topic sentence should be just broad enough and narrow enough to allow approximately five to seven sentences about the topic. Depending on the topic, there could be more sentences. If some of your sentences are about a different subject, perhaps you should be starting a new paragraph with a new topic sentence.

Use topic sentences as an aid in organizing your writing. When you properly focus a topic sentence, you have a solid basis upon which to include or exclude information as you write a paragraph.

A good topic sentence also enables the reader to anticipate the contents of a paragraph and thus to follow your ideas as they are expressed.

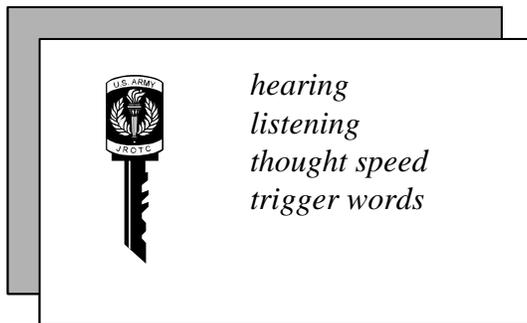
## CONCLUSION

Communication is how we transfer ideas among ourselves. Communication does not always work. Your message has to be perceived the way you intended it to be perceived.

You must understand your audience and your purpose. You should conduct research and support your ideas. You should decide on an organization for your information and outline your ideas.

Once you start writing, you need to understand some fundamentals of the English language. In order for people to respect and respond to your message, they must not be distracted by poor writing or inappropriate language. Follow the basic rules and people will pay attention to your ideas, and be impressed by your ability to express yourself.

## LESSON 3: BECOMING A BETTER LISTENER



### INTRODUCTION

**Listening** is the neglected communication skill. We spend nearly half of our communication time listening, but few of us make any real effort to be better listeners.

While all of us have had instruction in reading, writing, and speaking, we rarely get any training in listening. This seems like a misplaced emphasis when you consider that out of all the time we spend communicating (70% of our awake time), 10% of that time is spent writing, 15% is spent reading, 30% is spent talking, and an overwhelming 45% is spent listening.

Good listening is important to everyone. In the business world, listening is the communication most critical for success. But, listening also is important in other places — at home, in school, in houses of worship, in civic clubs, and at social gatherings. Listening is important, not only for gaining information, but also for the building of relationships.

Listening is the skill that can make or break a relationship. It is as important for you to understand the person as it is to understand what the person is saying. There is a lot more to listening than just understanding the meaning of words.

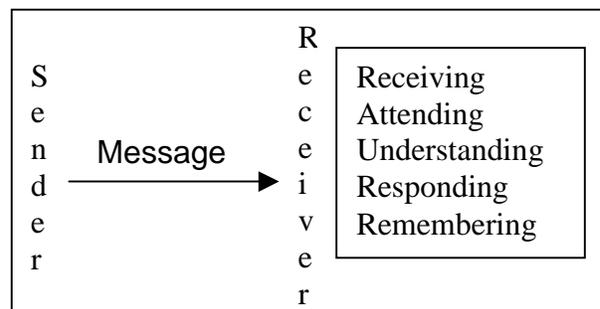
## THE PROCESS OF LISTENING

Listening is a complex process. It is an essential part of the total communication process. Unfortunately, it is a part that is often ignored. There are two reasons why this happens.

First, speaking and writing, which are the sending parts of the communication process, are highly visible and are much easier to evaluate. You are much more frequently tested on what you read than on what you hear.

Secondly, we are not as willing to improve our listening skills. Much of this unwillingness results from our incomplete understanding of the listening process. In order to understand the process, we must first define it.

You can define the listening process as the process of receiving, attending, and understanding messages transmitted through the medium of sound. Often the steps of responding and remembering may follow.



### RECEIVING

Speaking is the call to listening. The speaker has not communicated until the receiver interprets and understands the message sent. Remember that **hearing** and listening are not the same. Hearing is the reception of sound. Listening is the attachment of meaning to

sound. Hearing is, however, a necessary step for listening, and an important component of the listening process.

### *ATTENDING*

Hearing is only the first part of listening. You must then interpret, appreciate, or evaluate what you are hearing. Good listening requires energy and concentration, even though you tend to think of it as an automatic process. After you have received a message, you must attend to it. Whether or not you attend to an incoming message, is a choice you actually have to make. Until you pick up the math book and study for the test, you have not attended to the message that a “math test is tomorrow.”

### *UNDERSTANDING*

Effective communication depends on understanding. That is, effective communication does not take place until the receiver *understands* the message. Understanding must result for communication to be effective.

### *RESPONDING*

Sometimes, during communication, a response is appropriate. There are several types of responses.

- Direct verbal responses. These may be spoken or written.
- Responses that seek clarification. This involves asking for further information.
- Responses that paraphrase. You may say, “in other words what you are saying is....” A paraphrase gives the sender a chance to confirm that you understand the message.
- Nonverbal responses. Sometimes a nod of the head or a “thumbs up” may communicate that the message is understood.

Responding is a form of feedback that completes the communication transaction. It lets the sender know that the message was received, attended to, and understood.

### *REMEMBERING*

Memory is often a necessary and essential part of the listening process. What is the relationship between memory and listening? Understanding the differences between short-term memory and long-term memory will help explain the relationship.

With short-term memory, information is used immediately, as with looking up phone numbers. This type of memory can only hold a limited amount of information, and is very sensitive to interruption.

Long-term memory allows you to recall information and events hours, days, weeks, and sometimes years later. For example, think of all the things you can remember that happened to you as you were growing up.

### **TYPES OF LISTENING**

Different situations require different types of listening. You may listen to obtain information, improve a relationship, gain appreciation for something, make discriminations, or engage in a critical evaluation.

While certain skills are basic and necessary for all types of listening (receiving, attending, and understanding), each type requires some special skills. Before you can fully appreciate the skills and apply the guidelines, you must understand the different types of listening.

### *INFORMATIVE LISTENING*

With this type of listening, the primary concern is to understand the message. Much of your learning comes from informative listening. For example, you listen to lectures or instructions from teachers, and what you learn depends on how well you listen. If you listen poorly, you are not equipped with the information you need. There are three key factors for informative listening.

1. **Vocabulary.** Increasing your vocabulary will increase your potential for better understanding.
2. **Concentration.** Sometimes it is hard to concentrate because more than one thing is going on at a time. Perhaps the listeners are preoccupied with other thoughts, or with their own needs. It may also be true that they are just not interested. Others have not learned how to concentrate while listening. They have not made themselves responsible for good listening. Concentration requires discipline, motivation, and acceptance of responsibility.
3. **Memory.** You cannot process information without bringing memory into play. Memory helps informative listening in three ways.
  - a. It provides the knowledge bank for you to recall experiences and prior information.
  - b. It allows you to create expectations and make decisions concerning what you encounter by calling on your past experiences.
  - c. It allows you to understand what others say. Without memory of words and concepts, you could not communicate with anyone else and understand the meaning of messages.

### *RELATIONSHIP LISTENING*

The purpose of relationship listening is to either help an individual or to improve the relationship between people. Although relationship listening requires you to listen for information, the emphasis is on understanding the other person. Three behaviors are key to effective relationship listening: attending, supporting, and empathizing.

1. **Attending.** In relationship listening, attending behaviors indicate that the listener is focusing on the speaker. Little things like nodding your head or saying “I see,” will let the speaker know that you are involved.
2. **Supporting.** Many responses have a negative or non-supporting effect. For example, interrupting the speaker or changing the subject are not supportive. Sometimes the best response is silence. Three characteristics describe supportive listeners.
  - They are careful about what they say,
  - They express belief in the other person,
  - They demonstrate patience (they are willing to give the time).
3. **Empathizing.** What is empathy? It is not sympathy, which is a feeling for or about another. Nor is it apathy, which is a lack of feeling. Empathy is feeling and thinking *with* another person. This characteristic lets you see, hear, or feel as others do. It allows you to “walk in someone else’s shoes.” Empathetic listening is critical to effective relationship listening.

### *APPRECIATIVE LISTENING*

Appreciative listening includes listening to music for enjoyment, to speakers because you like their style, to your choices in

theater, television, radio, or film. It is the response of the listener, not the source of the message, which defines appreciative listening. The quality of appreciative listening depends in large part on three factors: presentation, perception, and previous experiences.

1. **Presentation.** Presentation encompasses such factors as the medium (the form or way it is presented), the setting, or the style and personality of the presenter.
2. **Perception.** Your attitudes determine how you react to and interact with the world around you. Perceptions are critical to how and whether or not you appreciate the things to which you listen.
3. **Previous experiences.** Sometimes the experience you have had in the past influences how you appreciate or enjoy things. If you know too much about the topic, you may be too critical about it. If you associate pleasant experiences with the topic, you may have a more positive attitude toward the subject.

### *CRITICAL LISTENING*

Critical listening goes beyond appreciative listening, for it adds the dimension of judgment. Critical listening is listening to comprehend and then evaluate the message. The ability to listen critically is especially essential in a democracy.

### *DISCRIMINATIVE LISTENING*

By being sensitive to changes in the speaker's rate, volume, force, pitch, and emphasis, the discriminative listener can detect both small and major differences in meaning. Small clues can strengthen relationship listening. Small differences in sound can enhance appreciative listening. Sensitivity to pauses and nonverbal cues allow critical listeners to more accurately judge not only the

speaker's message, but the intentions of the message as well. There are three skills important for discriminative listening.

1. **Hearing ability.** Obviously, for people who do not hear well, it is difficult to discriminate among sounds.
2. **Awareness of sound structure.** Listeners that understand the structure of the language being used for the message will have an advantage in discriminative listening.
3. **Ability to integrate nonverbal cues.** Words do not always communicate true feelings. The way they are said or the way the speaker acts may be the key to understanding the true or intended message.

Effective listening, whether informative, relational, appreciative, critical, or discriminative, requires skill.



### **BARRIERS TO EFFECTIVE LISTENING**

In order to become a better listener, it is important to understand the barriers that can get in the way of effective listening. Once you understand these barriers, you can work to overcome them.

- **Laziness.** Effective listening can be hard work.
- **Internal distractions.** Sometimes you have a lot on your mind and it is hard to

concentrate on what someone else is saying to you.

- Past relationships. Both a poor and an excellent past relationship with the speaker can affect how you listen.
- Lack of trust. Believing that the speaker has betrayed your trust or that the speaker does not have your best in mind is a barrier.
- Lack of self-confidence. If the speaker does not sound confident, you will have a harder time staying focused on what you hear.
- Prejudice. Prejudice can effect both how you hear the speaker as well as how you receive the information.
- The “halo” effect. If the speaker has an association with someone or something you already like, you are much more likely to be receptive to the speaker as well as the information. You may not question what you should question.
- The “horns” effect. If the speaker has an association with someone or something about which you have negative feelings, you may not listen the way we should.
- External distractions. Sometimes there are a lot of things going on in the same location where you are trying to listen to the speaker.
- A different level of power between you and the speaker. Either you may have the authority, or the speaker may. Either way, it can impact how you listen.
- Gender preferences. You may have different expectations because of the gender of the speaker.
- Emotionality on the part of the speaker. If the speaker gets passionate about the topic, it may distract you from hearing the real message.
- Prejudging the message before the entire message has been delivered. Sometimes a speaker will say something at the start of a speech or conversation that may distract you from effectively listening to the rest.
- Allowing personal characteristics of the speaker to get in the way. If the speaker was dirty or smelled unpleasantly, for example, you might not attend to everything that is said.
- Not caring about the speaker. Being indifferent to the person can affect how well you pay attention to the message.
- Interrupting. Sometimes the listener is so excited about an idea he or she wants to share, that the listener does not wait for the speaker’s thoughts to be completed. This distracts both the listener and the speaker.
- **Trigger words.** Some words evoke an emotional response that prevents effective listening. These words are distracting because they make you concentrate on something else besides what is being said. If a speaker uses the word “lottery,” your mind might wander to untold riches. Words like “homework” or “test scores” may also distract you.



- Delivery style. Sometimes the way the speaker communicates can be distracting. The speaker might have a very monotone voice, or may stutter. Some people continuously put in verbal pauses like “uh” or “you know.” Any of these things may cause you to concentrate more on the delivery than the content.

## HOW TO BE AN EFFECTIVE LISTENER

There are many guidelines that will help you to become a more effective listener. Most involve listening “actively” while others speak.

- Find an area of interest. Listen with a purpose. Be interested. Try to organize what you hear.
  - Judge content not delivery. Do not stop listening because the sender does not meet expectations. Listen to the words. Look for the message.
  - Hold your fire. Do not get over-stimulated by the message. Do not react until the message is complete. Keep your emotions in check. Do not interrupt because you believe that what you have to say is more important or more correct. There will be time for you to react later. The speaker may surprise you and wind up saying what you want to say.
  - Listen for ideas. Focus on the person’s central ideas. Do not get bogged down in the details. Try to listen at a higher level. Listen for new knowledge or concepts.
  - Be flexible. Vary the ways in which you attempt to remember the information. Concentrate on finding the best way to learn the information.
  - Work at listening. Establish and maintain eye contact. Acknowledge understanding. Stay tuned-in.
  - Resist distractions. Concentrate on the speaker. Tune out other things that may be going on. Turn off the things you can control, like the TV or the radio. Try not to do several things at the same time. Focus on the sender.
- Exercise your mind. Challenge yourself to listen totally. Try it for short time. Then make it longer and longer. See if you can listen to an entire presentation without losing concentration.
  - Keep your mind open. Communication efficiency drops to zero when we hear certain trigger words, such as communist, Democrat, or Republican. Everyone has words that evoke an emotional response. Effective listeners are aware of keeping their convictions and emotions in check.
  - Capitalize on **thought speed**. Most of us talk at 120 words a minute. Our thinking speed is about 500 words a minute. That gives us a lot of spare time while a person is speaking to us. Poor listeners let their minds wander. Good listeners think about what is being said by anticipating the point, summarizing, weighing evidence, or looking for nonverbal clues.

## CONCLUSION

So now you know the parts of the listening process. You know there are various types of listening. You have read about barriers to effective listening and tips for overcoming those barriers. Use this information to improve your skills and become a better listener. Remember — improved listening involves work, but the results are well worth the effort.

## LESSON 4: CREATING BETTER SPEECHES



*articulate*  
*commemorative*  
*dramatic*  
*statement*  
*eye contact*  
*impromptu*  
*modulation*  
*persuasive*  
*silence*  
*tone*  
*vocal qualities*  
*volume*

- Analyze the purpose and audience
- Conduct your research
- Support your points
- Organize your information
- Draft and edit your speech
- Practice, practice, practice

### ANALYZE PURPOSE AND AUDIENCE

#### PURPOSE

The purpose of a speech depends upon the type of speech you are giving (or required to give), your topic, and the audience level. In some cases, there may be a general purpose and/or a specific purpose. The general purpose for an informative speech might simply be to inform the audience about your topic. A specific purpose, however, states the main idea (or ideas) of the speech. The specific purpose should be written in one sentence to ensure that its intent is clear and concise. For example, if you are giving a speech to an eighth grade graduating class on the advantages of taking Army JROTC, the following statements could represent your topic, general purpose, and specific purpose:

<i>Topic:</i>	Army JROTC
<i>General Purpose:</i>	To inform eighth graders about JROTC
<i>Specific Purpose:</i>	To inform the graduating class at Center Middle School about the advantages of taking Army JROTC in their ninth grade year at Lakeview High School.

It is important to identify the purpose of your speech because it will keep you focused as you analyze your audience and begin to organize your speech. You may make decisions along the way based on the purpose of your speech.

### INTRODUCTION

Throughout your life you will be asked to give speeches. These speeches may be formal presentations or just a few words at an informal occasion. Whatever the situation, you will probably feel nervous. But do not worry. This is natural. Most people become anxious when someone asks them to talk in front of a group. Relax, establish **eye contact** with your audience, and tell them what you want them to know. After the first minute, you should begin to feel more comfortable. Then you will be well on your way to delivering a successful speech.

One of the best ways to be a successful speaker is to be completely prepared. While this may not be possible with an **impromptu** speech, preparing for other types of speeches, such as a **commemorative** speech, will require an organized and designed speech.

The six basic steps of preparing for public speaking are:

## AUDIENCE

The goal of every speech and speech-maker is to win a response from the listeners. To accomplish this, you need to have some basic knowledge about your audience.

- What knowledge does the audience already have about this topic?
- What additional information will the listeners most want to know about the topic?
- What particular aspects of the topic will be most relevant to the audience?
- What is the audience's attitude about this topic?
- How can you best gain and hold their interest and attention?
- What do you need to think about as far as language level of the audience?
- What interests do you share with your listeners?
- What is the occasion of the speech?
- How long should the speech be?

Additionally, you should try to learn some demographics about the audience. Demographics is statistical information about groups of people. This data tells you about group characteristics, not individuals. You can learn about the audience's:

- Age
- Occupation
- Religion
- Ethnic or cultural background
- Gender
- Physical characteristics
- Economic status

- Educational background
- Political affiliations

You can learn about your audience by personal observation, information from others, interviews, and questionnaires.

The more you know about your audience, the more you can gear your talk toward their needs and interests, and the less likely you will be to offend anyone.

The best speakers focus on the audience. Good speakers know that the best collection of information will not substitute for a good audience analysis.

## SELECT A TOPIC

Sometimes a topic is assigned to you. Other times you are given the opportunity to select your own topic. There are several methods that can be used to make a selection.

- If you are not sure of what topic will interest you, monitoring your own behavior for a period of time allows you to observe the activities in which you participate, and analyze your own interests.
- Listing topics allows you to either list broad categories of topics or subtopics under one broad category.
- Engaging in personal brainstorming allows you to list as many topics as you can think of in a short amount of time.
- Identifying current topics allows you to identify topics of interest today because they are in the news or on the minds of the members of your audience.
- Clustering topics allows you to think of a concept or an idea about which you know something, write and circle it in the middle of the page, and then spend about

ten minutes letting your mind free associate other topics related to the concept. This is different from just listing various topics because with clustering, all the topics are related in some way. Once you have finished, you can pick the pieces that can be developed into a speech.

Ask yourself the following questions:

- Are you interested in the topic?
- Will you enjoy talking about this topic?
- Do you want to entertain, inform, or persuade?
- Will the audience be interested in your topic?
- Will the topic offend some members of your audience?
- Does the occasion of the speech have a special purpose?
- Do you know anything about this topic?
- Do you have any interest in learning about this topic?

Once you have selected your topic, confirm whether it is appropriate for your audience and for yourself. Is it appropriate ethically; and is it appropriate for the occasion? Narrow the topic appropriately for your time constraints, and you are ready to conduct your research.

**GET STARTED**

The general purpose and the specific purpose of the speech are developed early in the speech preparation process, usually before you conduct any research. You do, however, need to have a certain amount of information in order to write a thesis statement.

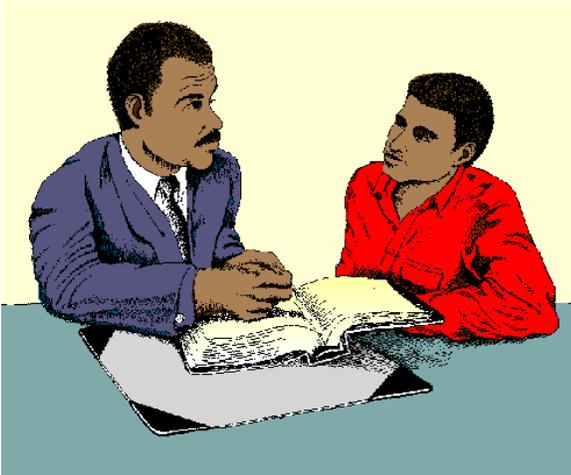
The thesis statement is a one-sentence summary of the speech. It acts like the topic sentence in a written composition. It is a complete sentence that tells exactly what your speech is about. Once you have your general and specific purposes and your thesis statement, you are ready to conduct your research.

<i>Topic:</i>	Army JROTC
<i>General Purpose:</i>	To inform eighth graders about service learning
<i>Specific Purpose:</i>	To inform the graduating class at Center Middle School about the advantages of participating in service learning and how they can get started.
<i>Thesis Statement</i>	Participating in service learning will allow you to learn outside the traditional classroom environment and help fill a need in the community.

**CONDUCT YOUR RESEARCH**

There are many ways to conduct research on your topic.

- Personal experience
- Newspapers
- On-line newspapers
- Public libraries
  - Library catalog
  - Reference works
  - Periodicals
  - Non-print materials
- On-line libraries
- School libraries
- State/local agencies on-line
- Personal interviews



### *PERSONAL INTERVIEWS*

Personal interviews can be helpful if they are easily obtainable. The information-gathering interview is an especially valuable form of research. The interview allows you to view your topic from an expert's perspective, to take advantage of that expert's years of experience, research, and thought. You can use an interview to collect facts and to stimulate your own thinking. Often the interview will save you hours of library research and allow you to present ideas that you could not have uncovered any other way. And because the interview is a face-to-face, interaction with an expert, many ideas that otherwise would be unclear can become more understandable.

### *WHY RESEARCH?*

Research is used to increase speech effectiveness as well as to enhance your credibility. You will want to know the most recent information. Knowing about any new controversies and the latest information will help you understand the audience's attitudes and will assist you in developing strategies for the best approach.

Remember to write down where you are finding all your information. You may

need to go back and find more data, and you also need to give credit to your sources during your speech.

### *SUPPORT YOUR POINTS*

Knowing the details that support the ideas within your speech will allow the audience to look at you as an expert. They will be more likely to give you their undivided attention. There is an art to giving a credible and well-supported speech. Support for your points can come in several forms.

### *Facts and Figures*

Facts and figures are statements and verifiable units of information. You can impress an audience if you include a lot of facts and figures. You must make sure they are accurate.

### *Descriptive Statistics*

Descriptive statistics explain things in terms of size or distribution. These statistics are powerful because they give the impression that they are the result of a thorough scientific study. When evaluating statistics one should consider the source, seek multiple sources, cite the statistic completely, and try to use current and relevant statistics.

For example, if you were naming someone as the greatest tennis player of all time, just making the statement is not as impressive as giving the statistics that support the statement.

### *Statements by Authority*

Statements of authority let you “borrow” the credibility of the expert.

In the example of naming the world's greatest tennis player of all time, if you can also quote a well-known tennis player as agreeing with your estimation, that would carry a lot more credibility.

### ***Narratives***

Narratives are examples in the form of stories. Audiences will often listen to narratives when they will not listen to anything else. Be sure that the audience sees the relationship between the story and the point you are making. Narratives should always have a beginning, middle, and end, and should be interesting, while avoiding unnecessary details and excessive length.

### ***Definitions***

There are three types of definitions: logical, descriptive, and operational. A logical definition is the dictionary definition. A descriptive definition describes how a word derives from the root word of its culture. Operational definitions tell how the object relates to how it works or operates.

### ***Humor***

If you are trying to build credibility, humor can be effective because people like to hear a good joke, and they are likely to remember it and associate it with serious ideas. Political candidates use humor in their speeches.

Remember, only use humor at appropriate times during the speech. There are clearly some speeches where the use of humor would not be appropriate at all. When explaining to a group of youngsters why their behavior was inappropriate, humor may be out of place.

### ***Logic, Testimony, Statistics, and Facts***

Logic, testimony, statistics, and facts are the support types that can prove your points. Without this support, the points you make in a speech will be less **persuasive**.

Supporting information will also clarify, add interest to, and make memorable your points.

### **OUTLINE YOUR INFORMATION**

Once you have gathered information and found the supporting logic, facts, testimonies, or statistics, the next step is to create an outline of your information.

Outlining your points will help you see the main themes in your speech, let you add to your notes, and ensure your speech will flow naturally. You can write an outline in words and phrases or in complete sentences, but it is best to use as few complete sentences as possible. By avoiding complete sentences, you will limit the temptation to just read your speech from your notes.

When outlining your main points and supporting ideas, make sure that all of them support the goal and purpose of the speech.

There are several ways to organize the information. Before you start, think about the various alternatives available to you.

- Topical organization allows you to present several ideas related to one topic. These ideas follow a logical order. This is one of the most common ways to organize ideas.
- Chronological organization uses time sequence for the framework. Chronological organization is important for speeches that require background information.

- Spatial organization orders material according to physical space. You may use spatial order in speeches involving geographical locations.
- Classification puts things into categories. This pattern fits many speeches.
- Problem/Solution puts the problem in the first part of the outline, and the solution into the second part.
- Cause/Effect organization describes the cause of a problem in the first part of the outline, and the effect is described in the second part.

Regardless of how you format your outline, it should contain the following elements:

1. The title
2. The specific purpose
3. The thesis statement
4. The introduction, which may be outlined or written in full
5. The body of the speech in outline format
6. The conclusion of the speech, which may be outlined or written in full
7. A bibliography of sources or references consulted

## WRITE AN INTRODUCTION

Once you have an outline of the information that is the body of your speech, you need to think about how you will introduce the information. The introduction accomplishes several things.

- Gets the audience's attention
- Introduces the topic
- Shows the topic's importance

- Presents the thesis of the topic
- Forecasts the major ideas

There are many ways to get the attention of your audience. You can:

- Wait for **silence**
- Tell a joke
- Tell a story related to your speech
- Ask a question
- Quote a famous person
- Make a **dramatic statement**
- Use a gimmick
- Compliment the audience
- Point to an historical event
- Refer to the occasion

Different types of speeches require different types of introductions. You will have to decide what will work for your topic and your audience.

Within the introduction, you will give a “preview” of your presentation. The preview is usually only a sentence or two long. Be brief and be clear. After the introduction, your audience should know exactly what you are talking about and, in some cases, why.

## THE BODY OF YOUR SPEECH

The body of your speech should take about 75% of the allotted time. In this main section of the speech you will want to reinforce your general and specific purposes. You will support your main idea with examples. These ideas should be carried throughout the speech in a logical order, being supported by data.

The main body of the speech is typically divided into main points, usually two to five. These main points should be similarly worded and approximately equal in importance.

Make sure you use words that your audience will understand. Eliminate complex sentences and try to speak as naturally as possible. Make the body of the speech like the body of a report: organized, concise, and to the point.

### WRITE A CONCLUSION

The conclusion of a speech is also like the conclusion of a report. The conclusion should be short and review the main ideas. Wrap up your ideas and remember to leave time for your audience to ask questions. Do not rush through the conclusion. This is your final opportunity to tell the audience that you are an informed and confident speaker.

The conclusion can be very effective when it ends with a surprising statement. Such a statement can make your presentation unforgettable.

### TRANSITIONS

Transitions are statements throughout your speech that connect different parts of your speech. Transitions look back at what you have stated and connect it with the next item you will be discussing. It is especially important to have a transition between your introduction and the body of your speech, and the body of your speech and your conclusion. Adding transitions will make your speech sound polished and prepared.

### USE VISUAL AIDS

Visual aids can be a stimulating part of your speech. They allow the speaker the

freedom to use overheads, slides, charts, pictures, film, or anything else that helps your audience relate to the topic. Visual aids can be hand written or drawn, or they can be computer generated. Usually, visual aids are prepared ahead of time. Occasionally, they can be drawn, on chart paper or a board, during the presentation. This is usually when input from the audience is required.

Visual aids are successful when they help keep the audience interested in the topic. You can use them to support any part of your speech. For example, visual aids can capture the audience's attention in the introduction, support your main idea(s) in the body, and leave the audience with a favorable impression during the conclusion.

If you decide to use visual aids, do not let them distract you. Prepare your visual aids ahead of time and practice with them. Do not display them until you are ready to use them. When you are finished with a visual aid, remove it or cover it so it does not distract your audience. Try to use only a few visual aids. Visual aids should add to your speech, not be the main substance of your speech.

When you give your speech, make sure you focus your attention on the audience. Do not talk to your visual aids, or turn your back to the audience. Make sure the point of the visual aid is clear to the audience. If you are giving out materials such as handouts, do not give them out during your speech. Distribute them before or after the speech.



## PRACTICE

You have probably heard the expression “Practice makes perfect.” This is definitely true in speech preparation. The more you practice, the more polished you will sound, and the less you will have to rely on your notes.

Practice in front of the mirror, your family; or one or more friends. If you can, take a “dry run” in the room in which you will deliver the actual speech. Use your visual aids to make sure they work. Perhaps you can even record yourself practicing and see how it sounds. You may hear some places where you are not communicating effectively. Each time you practice you will find ways to improve your speech.

## DURING THE PRESENTATION

If you have analyzed your audience, done your research, organized the information, written your outline or notes, and practiced your delivery, you are almost done. Of course, you still need to deliver the actual speech!

There are certain steps you must remember:

- Capture the audience’s attention.
- Establish eye contact.
- Articulate your words. Do not mumble.
- Stand up straight, do not shift your body and shuffle your feet. Do not put your hands in your pockets.
- Do not use phrases such as “okay,” “you know,” “um,” “I mean,” and “well.”

- Establish an acceptable **volume**. Do not screech or use a monotone voice.
- Do not talk to your visual aids. Face the audience.

## PRESENTATION GUIDELINES

Here are seven guidelines for ethical speech and delivery in communication:

1. Understand the power of the lectern. Being in front of people gives you a certain amount of credibility.
2. Speak truthfully and be sure of your facts.
3. Be willing to rock the boat. Stand for what you believe, but do not alarm your audience.
4. Do not lie.
5. Avoid excess and inappropriate emotional appeals.
6. Use credible and current sources.
7. Avoid ambiguity. Be concrete in your statements.

## VERBAL COMMUNICATION

In verbal communication, it is up to you to use your voice and **vocal qualities** to drive home your ideas and information. You have control over rate, volume, pitch, pause, articulation, and pronunciation. Your voice can help you in the following ways.

### *Rate*

The rate at which you speak is very important. It should not be too fast or too slow. Vary the rate at which you speak to add emphasis to your presentation.

### ***Volume***

This is another verbal technique that can add emphasis to your speech. Make sure you can be heard in the back of the room.

### ***Pitch***

Pitch is the use of notes (higher or lower) in a voice range. Speak in a range and **tone** that is comfortable for you and move up or down your scale for emphasis. **Modulation** in your voice will keep the audience listening.

### ***Pause***

Pause gives you time to take a breath and collect your thoughts. It also gives the audience time to absorb your points and ideas.

### ***Articulation/Pronunciation***

Articulation is the art of speaking intelligibly and making proper sounds. Listen to yourself and make your words distinct and understandable. The more clearly you **articulate**, the more confident you will sound.

Even if you articulate clearly, you can still mispronounce a word. Mispronunciation distracts listeners from focusing on the content of the speech.

## **CONCLUSION**

Speech is the most widely used medium of communication. The main purpose of any speech or presentation is to deliver clear and specific ideas to the listeners. Preparing and practicing your speech is the best way to have a positive speaking experience.

You will have many opportunities to give speeches during your life. The better prepared you are, the more comfortable you will feel, and the more successful you will be. Giving speeches is a science with definitions, terms, and processes. Study these and practice them, and you will soon be a competent speaker.

## LESSON 5: BECOME A BETTER SPEAKER



*constructive  
criticism  
coping strategy  
mistakes*

### INTRODUCTION

“The human brain is a wonderful thing. It operates from the moment you are born until the first time you get up to make a speech.”

Howard Goshorn.

Most individuals spend seven out of every ten waking hours communicating; three-fourths of this communication is through speech. The average person speaks some 34,020 words a day. That is equal to several books a week, more than 12 million words a year. With all that speaking, the likelihood of an individual being asked to give a speech is high.

When you were younger, being the center of attention was probably fun. Now that you are older, you are probably much more concerned with your appearance and what people think of you. You may be much more nervous about public speaking. With the right knowledge and practice, you can minimize this nervousness.

Speeches are not made alone in a room. When you give a speech, there is always an audience. You and the audience have a two-way relationship. You “give” the speech to the audience. In turn, the audience gives you their attention and reaction, called feedback. The advantage of oral communication is that it is a face-to-face process of mutual give and take.

At some point, you will be asked to speak in front of your class, at a family gathering, at a club group, or some other public environment. Perhaps you have already experienced these situations. If so, you know that being nervous can be the hardest hurdle to overcome.

### COPING WITH NERVOUSNESS

Recent studies show that speaking in front of a group is by far the greatest fear of most people. It ranks ahead of the fear of dying, riding in an airplane, or failure in other areas of one’s personal life.

You have probably already had to talk in front of a group of people. You may have felt one or more of the common symptoms of nervousness.

- Shaking knees
- Dry mouth
- Quivering voice
- Stomach pains
- Loss of memory

### COPING STRATEGIES

One of the most important concepts on which you should focus when you are nervous about speaking in public is that you are not alone. Whatever group you are facing, look around and realize that you have something in common with everyone there. Every person you see has been, or will be, in your situation at some time. In many cases, such as classroom speaking, you are all members of the same group.

“There are two types of speakers: those that are nervous and those that are liars.”

Mark Twain

Another **coping strategy** to deal with nervousness is to realize that you look more confident than you actually feel. Think about all the newscasters you have seen on television. Many of them have said that they feel “stage fright,” yet it is rarely noticeable. Look how many instructors must stand before a classroom and keep the attention of their students. For many individuals, being “in the spotlight” is their profession or career. For other individuals, presenting a speech is an occasional event, such as in speech classes. For everyone, feeling the symptoms of nervousness is ordinary, but it rarely shows.

Keep in mind that your listeners are there to hear what you have to say. Assume they are a friendly crowd. They are not “out to get you.” They are waiting to learn some interesting information.

Another important point to remember is to concentrate on your speech content. Do not concentrate on how you are saying it. If you are discussing a subject in which you are interested, the audience will perceive this. If you are more focused on your gestures and your emphasis on certain words, both you and the audience will be distracted.

Be aware of your nervousness before you begin and deal with it. Take some deep breaths and perhaps even do some stretches. Give yourself some time to collect your thoughts.

The best way of all to overcome nervousness is to know that you are prepared. Proper preparation and rehearsal can help to reduce fear by 75%. Practice your speech in front of a mirror. Try to practice enough so that your use of notes will be minimal. If you know your subject very well, and are solidly prepared, you will balance your nervousness with a strong feeling of confidence. The audience will see your level of confidence.

To review, here are some strategies for coping with and overcoming nervousness:

- Look at the audience and know that they all feel nervous when giving a speech.
- Remember that the audience is there to hear what you have to say.
- Concentrate on the subject.
- Keep in mind that your nervousness does not show.
- Prepare, prepare, prepare.
- Practice, practice, practice.
- Breathe deeply.

### TIPS FOR PRESENTATION

After you have gathered the necessary information for your speech, you are ready to present it. When you stand before your audience, remember the strategies for dealing with nervousness. Take a few seconds, breathe deeply, and begin your presentation. Proper breathing techniques can reduce fear by 15%.

Remember to be yourself. While you are in front of the audience, think positively. Know that the audience is there to learn and listen.

Establish eye contact with members of the audience. Some members of the audience may not return the eye contact. The solution is to establish eye contact with the individuals who are returning your interested look. Remember, this is the way to begin talking *with* your audience and not just *to* them. You are communicating with both your words and your eyes.

When you are giving a speech, you should not read from your notes. Only glance at your notes occasionally, to be sure that you

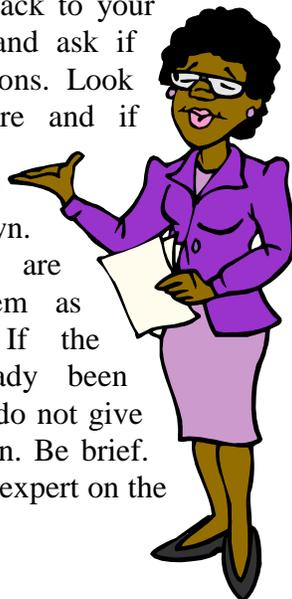
are following the outline and format of your speech.

Try to avoid a lot of body shifting. The movements and gestures you make can be very distracting to the audience. Shuffling your feet or scratching your ear will cause the audience to lose concentration.

Also avoid those interrupting pauses such as, “Uh,” “You know,” “I mean,” “Well,” and “So.” Adding these phrases is a very common habit for speakers. It can also be a hard habit to break, and one that will take some effort and concentration.

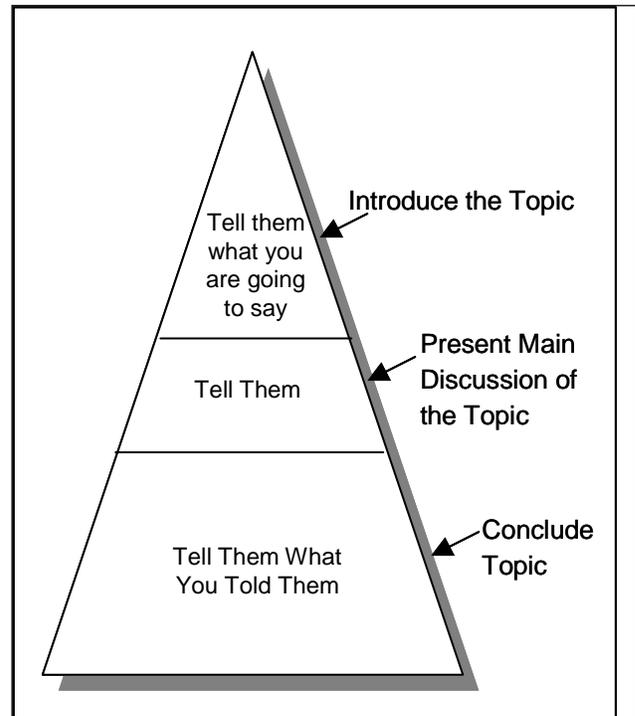
Everyone makes **mistakes** when they are speaking. If you accidentally say a wrong word or you suddenly lose track of where you are, do not panic, but attempt to smile. Smiling through your fumbles tells the audience that although you made a slight mistake, you are still in control of the situation. Correct it if it is an important point. If it is not, disregard your blunder and continue with your presentation. Go a little more slowly and take your time, maintaining your concentration.

What is equally important in giving a speech is concluding it. When you are finished, do not rush back to your seat. Be professional and ask if anyone has any questions. Look around with composure and if there are no questions, politely say, “Thank you” and go sit down. However, if there are questions, answer them as well as you can. If the information has already been covered in the speech, do not give an extensive explanation. Be brief. Remember, you are the expert on the subject.



## BASIC SPEECH STRUCTURE

All types of speeches basically have a beginning, middle, and an end. They use a standard format for organization. You tell the audience what you are going to say, you say the main part of your speech, and then you tell the audience what you told them.



While preparing your speech, you will follow the six basic steps to effective speech writing.

1. Analyze the purpose of the speech and the audience.
2. Conduct research and gather information.
3. Support your ideas
4. Organize all the material.
5. Draft and edit the speech.
6. Practice and get feedback.

## TYPES OF SPEECHES

There are several major categories of speeches:

- Informative
- Persuasive
- Actuating
- Argumentative
- Entertaining
- Impromptu

The purpose of each speech varies, depending on what you are attempting to accomplish as a speaker.

### *THE INFORMATIVE SPEECH*

The speech to inform does exactly what it says. It informs or tells the audience about something. It delivers information so that the audience can grasp and remember important data about the subject. The goal is for the audience to accomplish understanding of the subject. An example is a presentation on how to disassemble and reassemble the M16 rifle.

### *THE PERSUASIVE SPEECH*

The speech to persuade attempts to change the audience’s minds and/or behavior toward something. An example is persuading listeners not to “drink and drive.”

### *THE ACTUATING SPEECH*

The speech to actuate is a motivating speech like the persuasive speech, but the difference is that the speech to actuate calls for immediate action. For example, suppose your school principal announces that the school team needs to be encouraged about a big upcoming game. Then, the resulting

action may be in the form of a school “pep” rally.

### *THE ARGUMENTATIVE SPEECH*

The argumentative speech must be structured as most other speeches. It must rely on logical appeals. This type of speech is also known as a kind of reasoned persuasion. Many debates in social and political fields are based on this kind of speech. Another common example is the closing argument an attorney makes during a courtroom trial.

### *THE ENTERTAINING SPEECH*

The speech to entertain is used to relay a message in an entertaining manner. Humor plays an important part in this speech. For this reason, the entertaining speech can be difficult to present because humor is of a personal nature. But, if an entertaining speech is presented well, it can be very effective. When someone is being honored, very often another person will make a humorous speech about the honoree, perhaps telling a funny story about the person.

### *THE IMPROMPTU SPEECH*

The impromptu speech is something a little different, since most impromptu speeches are presented without elaborate preparation. The word “impromptu” means “to do something without preparation or advance thought — off-hand.” Here are some tips, benefits, and techniques related to impromptu speaking.

### *Building Self-Confidence*

“It usually takes me more than three weeks to prepare a good impromptu speech.”

Mark Twain

## ***Practicing***

For beginners, impromptu speeches are necessary in helping the individual to gain self-confidence and the ability to “think on your feet.” Impromptu speaking is an effective training device. The more practice you have in giving impromptu speeches, the better qualified you will be to deliver prepared talks. Suppose your instructor asked you to stand up and give an impromptu presentation on why you decided to join the Army JROTC. Pause for a few seconds before you begin and collect your thoughts.

## ***Benefits***

If you sound smooth and polished when giving an impromptu speech, both you and your audience will be impressed. By practicing, you will be capable of putting your thoughts into logical order. You will talk clearly and convincingly to your audience without any notes. Remember that your audience will not be expecting an elaborate speech, but they are there to hear you tell them something of interest.

## ***Techniques***

The best way to be prepared for the “unprepared” is to stay up-to-date in your field of interest. Clipping and saving articles and reading newspapers or news magazines are ideal ways to do this. Communicating with people who share your area of interest also helps you broaden your understanding.

Imagine a storehouse in your mind where you will file these different bits of information. When you stand to speak “impromptu,” you will be prepared to pull out the needed data from your mental file. For example, reading up on the Army JROTC and discussing your future in it with your

instructor will add to your ability to discuss this subject with your audience.

One way to organize your thoughts for an impromptu speech is to use a “Past, Present, Future” format. Speak first about the past of the subject, such as the history of the Army JROTC and what has been done to increase the number of cadets. Then, speak about the organization and the role it plays today by considering what is happening now and what kind of learning takes place. Next, contemplate the future. Consider what things may change, what improvements may be made, and where Army JROTC may be ten years from now.

Another procedure to use in your presentation is to support your ideas with examples or statistics. In addition, try to find experiences from your past that will add to your speech and make your points believable. For example, suppose your instructor asked you to make a speech about seatbelts and whether or not you favor a mandatory law for wearing them. You could talk about how you feel wearing seatbelts is a wonderful idea. But, most people already know that. You would not be telling them anything they did not already know. Instead, state why a mandatory law is a good idea by attaching it to something you have seen, heard, or read in the news. You could say something like “I read in the newspaper the other day that a family of four survived a car accident because they were wearing seatbelts. The report said that if it were not for that, they would have been thrown violently from their car. More than likely, they all would have died.”

Also, always be sure to take your time. Of course, some situations require a minimum or maximum time. Remember that you will need to collect your thoughts and to wait for the audience to quiet down. Most importantly, do not rush head-on into your presentation.

Concentrate on what you are saying and what you want to say.

Finally, try to stay on the subject. Keep focusing on the topic in your mind so that your examples or stories are extended from that basis. Practicing at home will help you be prepared in the classroom or anywhere the impromptu situation arises. Pick any object in your room or any story in the newspaper. Contemplate what you could say about it. Speak about the item while timing yourself.

### *Tips for Impromptu Speaking*

Remember these techniques to improve impromptu speaking:

- Stay knowledgeable on a variety of topics.
- Try a format such as “Past, Present, Future.”
- Support your ideas with examples or statistics.
- Add personal experiences.
- Do not rush. Collect your thoughts.
- Concentrate on what you are saying.
- Stay on subject.
- Practice giving impromptu speeches.

### **CONSTRUCTIVE FEEDBACK**

Sometimes you will be called upon to provide feedback on another person’s speech. It is important to realize that feedback need not always be negative or destructive. What it needs to be is **constructive feedback**.

The purpose of giving feedback is to improve someone’s performance in some way. In its most effective form, it provides constructive advice, direction, and guidance, in an effort to raise performance levels.

Effective feedback stresses both strengths and suggestions for improvement. In giving constructive feedback, you must be straightforward and honest; you must also respect the speaker’s personal feelings. Feedback is pointless unless the speaker profits from it. However, praise just for the sake of praise has no value unless the only goal is to motivate or improve self-concept.

Effective feedback reflects your consideration of the speaker’s need for self-esteem, recognition, confidence, and the approval of others. Ridicule, anger, or fun at the expense of the speaker, have no place in constructive feedback.

To give constructive feedback, listen carefully to the speaker. Focus on the following:

- The actual content of a speaker’s effort.
- What actually happened during the speech?
- The observed factors that affected performance of the speech.

### **CONCLUSION**

Speech is the most widely used medium of communication. The main purpose of any speech or presentation is to deliver clear and specific ideas to the listeners. Practicing the impromptu speech is an ideal way for many individuals to gain self-confidence and the ability to communicate “on their feet.”

Although fear of speaking is common, studies show that one of the most admired qualities in others is their ability to speak in front of a group.

Like writing, speaking is a skill. Once you grasp the basics, the rest is practice,

polish, and style. You may be embarrassed by initial mistakes, but you will survive. Few of us will become great speakers, but all of us can become more effective speakers if we take the time to practice the basics.

## LESSON 6: COMMUNICATING IN GROUPS



*barriers*  
*distortion*  
*empathetic*  
*filter*  
*grapevine*  
*groupthink*  
*rapport*

### INTRODUCTION

In this chapter, you will examine some of the characteristics and social influences that can affect group communications. In addition, you will have the opportunity to see how communication **barriers** and breakdowns can affect your ability to communicate effectively and how you can establish credibility through your communications.

The art of communicating is a skill that you must develop. Using words so that listeners or readers understand their meanings is a difficult task because of differences in background, education, and experience of individuals with whom you are trying to communicate.

Throughout this lesson, remember that the purpose of communication is to make known and exchange information, thoughts, opinions, or feelings by speech, writing, or gestures. It is a transmission and interchange, by any means, of information, feelings, and direction. A communicator must remember that communication is a circular process, with both parties being free to present as well as to receive ideas, feelings, and attitudes.

### ELEMENTS OF COMMUNICATION

Remember, the communication process is made up of various elements. These elements are communicators (senders), messages, receivers, channels (written words, sound, sight, radio, television), feedback, noise, and setting. See page 67 for details on each element.

The group communication process follows the same format. In groups, the communicator may send a message to several receivers that attach different meanings or interpretations to the message and, in turn, may offer different feedback.

### GROUP COMMUNICATION

Whenever there is a group of people together for any length of time, there will be social groups. Membership in these groups normally depends on factors such as skill, ability, job assignment, ethnic background, interests, or values. If you look around your school, you will probably be able to identify many social groups.

### INFLUENCES OF A SOCIAL GROUP

Not only can there be one or more social groups within an organization, they can have a great deal of impact on the operation of the organization. By uniting, members of a social group (or of social groups if there are more than one in an organization) can influence a leader's action — or the actions of the leadership in the organization — in regard to making decisions on policies, rules, or procedures.

## DEFINITION OF A SMALL GROUP

Most people would define a small group as having at least three and no more than twelve or fifteen members. A group needs to have at least three members, otherwise it would be difficult to make decisions. With three members, coalitions can be formed and some kind of organization is present. Too large of a group (more than twelve or fifteen members) inhibits the group members' ability to communicate with everyone else in the group.

Within the group, roles will evolve and procedures will be developed as to how the group functions. A group must have a common purpose or goal and they must work together to achieve that goal. The goal brings the group together and holds it together through conflict and tension.

## DECISION-MAKING IN GROUPS

Many groups meet to solve problems or make decisions. Typically, a six-step approach is used to make decisions within a group.

1. Identify the problem. What is the problem? What is wrong with the current situation?
2. Analyze the problem. What are the issues in play in your group's situation?
3. Identify the goals. What are the goals of the final decision?
4. Generate the solution(s). Generate as many solutions as possible. Avoid **groupthink** by listing many solutions. (Groups experiencing groupthink do not consider all alternatives and they desire unanimity at the expense of quality decisions. They are focused on reaching a decision, not finding the best solution.)

5. Evaluate and select the solutions. Measure each solution against the goals from step three.
6. Implement the solution(s). Enact the chosen solution(s).

## *BRAINSTORMING*

Another option for decision-making is brainstorming. When brainstorming, group members are encouraged to generate as many ideas about a particular topic as they can. Group members should be encouraged to say anything that comes to mind when brainstorming. Every idea is written down and judgments about ideas are saved until later, when the group returns to all of the ideas and selects those that are most useful.

## *NOMINAL GROUP DECISION-MAKING*

Nominal group decision-making is a group decision-making tool used when the group must place a set of options in a preferred order. In order to use the nominal method, group members work individually to list all alternatives to a problem or issue. Sometimes, the nominal method is used after a brainstorming session is held. The group facilitator asks each group member to individually rank all of the options from highest to lowest priority. Finally, the facilitator computes an average score for each idea. The lowest score is the highest priority for the group.

## *MAKING A FINAL DECISION*

There are many ways that a group can make a final decision, decide on a solution, or come to agreement. Some of the most popular ways of making the decision include:

- **Consensus:** The group members all agree on the final decision through discussion and debate.

- **Compromise:** Through discussion and readjustment of the final plan, group members come to agreement by giving up some of their demands.
- **Majority Vote:** The decision is based on the opinion of the majority of its members.
- **Decision by the Leader:** The group gives the final decision to its leader.
- **Arbitration:** An external body or person makes a decision for the group.

## LEADERSHIP IN GROUPS

Leadership is concerned with control and power in a group. Leadership can be aimed at either maintaining the social relationships in the group or facilitating the group to achieve its task. Groups will sometimes have two leaders: one for the social dimension and one for the task dimension.

Some researchers believe certain people are born with traits that will make them good leaders in all situations. A second perspective is that the group's leader selects an appropriate leadership style for the given task. A third way of understanding leadership says that to some degree, leaders are born with traits that make them good leaders, but that they also learn how to become leaders and use strategies appropriate to a given situation.

There are four main styles of leadership:

- **Autocratic:** The leader uses his or her authority to make decisions.
- **Democratic:** Authority is shared and all group members help make decisions.
- **Laissez-faire:** A “hands-off” style in which the leader allows the group to make its own decisions.
- **No leader:** No one in the group exercises leadership. This style, says researchers, leads to group disintegration and is followed by autocratic leadership.

## COMMUNICATION BARRIERS

In Lesson 3, you learned that there are many barriers to effective listening. These barriers can also interfere with effective communication in groups and lead to the **distortion** of communication. Once you understand how these barriers impact group communication, you can do your part to overcome them.

- **Laziness.** Effective communication can be hard work.
- **Internal distractions.** Sometimes group members may have a lot on their minds and it is hard for them to concentrate on what someone else is saying.
- **Past relationships.** If members of the group have either a poor or an excellent past relationship with each other, this can affect communication.
- **Lack of trust.** Believing that other members of the group have betrayed your trust or that they do not have your best interests in mind is a barrier.
- **Lack of self-confidence.** If a group member does not sound confident, another member may have a harder time staying focused.
- **Prejudice.** Prejudice can effect both how we hear others as well as how we receive the information.
- **The “halo” effect.** If a group member has an association with someone or something the group already likes, the group is much more likely to be receptive to the member as well as the information. Members may not question what they should question.

- The “horns” effect. If a group member has an association with someone or something about which the group has negative feelings, the group may not listen the way they should.
- External distractions. Sometimes there are a lot of things going on in the same location where the group is trying to listen to each other.
- A different level of power between members. One member may have the authority, and one not. Either way, it can impact how members communicate.
- Gender preferences. One group member may have different expectations because of the gender of another member.
- Emotionality on the part of a member. If a member gets passionate about the topic, it may distract other members from hearing the real message.
- Prejudging the message before the entire message has been delivered. Sometimes a member will say something at the start of a speech or conversation that may distract another member from effectively listening to the rest.
- Allowing personal characteristics of another member to get in the way. If one group member was dirty or smelled unpleasantly, for example, another member might not attend to everything that is said.
- Not caring about another group member. Being indifferent to a person can affect how well another member pays attention to the message.
- Interrupting. Sometimes a group member is so excited about an idea he or she wants to share, that the member does not wait for the communicator’s thoughts to be completed. This distracts both the sender and the receiver of the message.
- Trigger words. Some words evoke an emotional response that prevents effective communication. These words are distracting because they make group members concentrate on something else besides what is being said. Sometimes trigger words will represent different things to different members of a group. This also leaves room for misinterpretation.
- Delivery style. Sometimes the way information is delivered can be distracting. One group member might have a very monotone voice, or may continuously put in verbal pauses like “uh” or “you know.” Any of these things may cause other members to concentrate more on the delivery than the content.

### *PSYCHOLOGICAL BARRIERS*

Each member of a group has psychological needs. If these needs are not met, it can create problems. Psychological barriers to communication are more difficult to identify and overcome than other barriers, and require leaders and group members to possess and apply a knowledge of human nature to each situation.

Since everyone has a unique combination of factors (or **filters**) such as needs, values, beliefs, experiences, education, goals, etc., (all of which combine to make up a person’s character), it is through these filters that group members can see and hear the existence of possible psychological barriers. Consequently, it is through an understanding of how these filters can drive and/or influence one’s character — either independently or collectively — that people can learn to avoid potential communication problems, including these barriers.

## GUIDELINES TO AVOID BARRIERS

Listed below are guidelines that can help you to avoid communication barriers.

*Aim at your target.* Group members always want the target of their communication to understand the message thoroughly. Therefore, before sending a message, take a moment to aim at the target. Form the content and tone of the message so that it hits the target squarely and correctly, and on the first try.

*Use several channels of communication and repeat important communication.* Since barriers can easily filter or block information, communicators must often use several methods to relay the information. In addition, repeat important communication to ensure the information gets out to everyone.

## COMMUNICATION BREAKDOWNS

Factors that completely disrupt the flow of information are communication breakdowns. Presented below are three situations that can cause a total breakdown.

### REASONS FOR COMMUNICATION BREAKDOWNS

#### *Competing for a Person's Attention*

People or things that compete for a person's attention may be one cause for a break down in communication. Competition for attention occurs when a person receiving the information is trying to do several tasks at once. For example, when somebody interrupts you, one solution that you can implement is to stop working, clear your mind, and concentrate on the new subject until you understand it, then resume work as before the interruption occurred.

However, if you are the person doing the interrupting, you should handle the situation differently. Your first step is to recognize that the other person is busy. If your concern can wait, let it. If you must interrupt, make it as short as possible.

#### *Situations Affecting Self-Esteem*

A communication breakdown can often result from a situation that affects the self-esteem of the parties involved. In such cases, if you are aware that certain people do not get along with each other, or have not established a **rapport**, consider this when giving a message that must go to or through the other.

#### *Misunderstandings*

Misunderstanding what someone expects of you is another factor that can lead to a communication breakdown. When one group member does what they think another member wants them to do, but actually they do not do what is expected, there is a serious lack of communication.

Misunderstandings often occur when a person uses a word or phrase to describe an action or event rather than actually describing what took place. For example, saying there was a "fight" between Bonnie and Cheryl is quite different from saying Bonnie and Cheryl do not like each other and had an argument last night over what to watch on television.

Another cause of misunderstandings is the use of jargon. Jargon occurs when social or professional groups use certain words that have special meanings because of the nature of the group. Communication breaks down when people outside the group, or new people to that group, do not understand the special meanings.

### *Distortions, Interpretations, and Filters*

As you can see, group communications do not always run smoothly. In addition to various social influences or barriers, frequently someone will distort, dilute, change, or stop the information flow before it reaches everyone for whom the sender intended it. As information travels from one group member to another, each member has the opportunity to make it more specific by adding, changing, deleting, or refining the message.

Most communication processes are not always accurate or perfect since each person in a group must interpret what was said. Two more examples of opportunities for miscommunication are **grapevine** and **rumor**.

- Grapevine: An unofficial, informal communication network.
- Rumor: Poorly substantiated information that is passed along the grapevine.

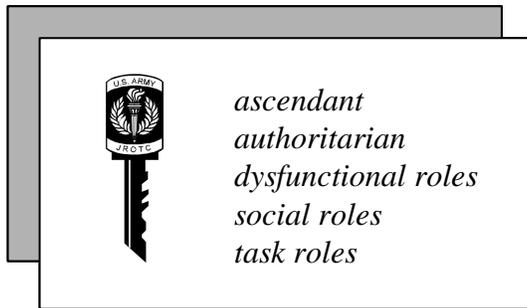
### CONCLUSION

Communicating is one of the most important things you do in life. *Do not think that it comes easily!* You must practice good communication skills daily; then, you will gradually see results and be able to communicate effectively and confidently in a group.

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*Material in this lesson adapted from:*  
Borchers, T. (1999). *Allyn & Bacon: Small Group Communication*. Retrieved December 2001, from <http://www.abacon.com/commstudies>

## LESSON 7: ROLES IN GROUP COMMUNICATION



### INTRODUCTION

At some point in your life, you have probably heard the saying, “You can either be a leader or a follower.” This statement might lead you to believe that there are just two possible roles you can assume within a group, when, in fact, there are a number of potential roles that you might play at any given time. Leadership is actually the combination of a variety of roles within a group that moves the group toward its goals.

Roles are the characteristic and expected social behavior of an individual within a group. We all have unique skills, strengths, and talents which, when contributed to the group, enable the group to operate effectively and be successful. When we communicate with one another in a group situation, we assume certain roles based on these unique skills, strengths, and talents. Some of these roles enable us to complete tasks, while others build and strengthen the group. Still others are destructive or harmful to the group communication process.

### THE ROLES WE PLAY

Within any group, roles will naturally evolve during the group formation process, and may change over time. Group dynamics and

communication can either be accelerated or hindered based on the roles we assume.

Though many different roles exist, they fall into three major categories.

- **Task Roles** are those roles that help the group accomplish a specific task.
- **Social Roles** are those roles that help the group maintain itself as a group.
- **Dysfunctional Roles** are those roles, which are destructive and block group communication.

### TASK ROLES

In order to accomplish a goal and achieve results, members of the group must take on task-oriented roles that will fit in with the objectives of the group as a whole. For example, if your group were responsible for putting on a fundraiser to raise money for a school trip, you might need people to suggest ideas, and gather information. You would also need someone to plan the event, and someone to coordinate it. These are all task roles. A description of some of the task roles is listed below (this is not an exhaustive list):

- Initiator — suggests new ideas and proposes solutions
- Opinion Seeker — looks for options; seeks ideas and suggestions from others
- Coordinator — organizes the various activities of team members and shows relationships between ideas
- Energizer — stimulates the group to a higher level of activity
- Recorder/Secretary — keeps a record of group actions
- Information Giver — offers facts or generalizations to the group
- Information Seeker — asks for information about the task; seeks data

- Evaluator — measures decisions against group goals
- Spokesperson — speaks on behalf of the group
- Planner — prepares timelines, schedules, and organizes group logistics

### *SOCIAL ROLES*

In order to maintain the group as a unit, it is also necessary that some people assume social roles to promote social interaction and a healthy group dynamic. These roles are less concerned with the task at hand, and more concerned with team growth and cohesiveness. Some social roles are described below:

- Encourager — praises the ideas of others; warmly receptive to other points of view and contributions
- Volunteer — offers whatever is needed
- Group Observer — keeps records of group activities and uses this information to offer feedback to the group
- Compromiser — moves the group to another position that is favored by all group members by coming “half way”
- Gatekeeper — Keeps communication channels open by encouraging or facilitating the participation of others or by proposing regulation of the flow of communication
- Standard Setter — suggests standards or criteria for the group to achieve. Standards may apply to the quality of the group process or limitations on acceptable individual behavior within the group.
- Summarizer — raises questions about the direction which the group discussion is taking by summarizing what has been discussed and showing where it deviates from group objectives

- Reality Tester — subjects group accomplishments to a set of standards for the group. This role examines the “practicality,” or the “logic” behind a suggestion of group discussion.
- Mediator — mediates the differences between group members. Attempts to reconcile disagreements, and relieves tension in conflict situations

### *DYSFUNCTIONAL ROLES*

When an individual has competing needs or a personal agenda that is not in harmony with that of the group, the result will often be one of frustration. This frustration frequently manifests itself through behaviors that block effective group communication. Some examples of dysfunctional roles are described below:

- Aggressor — attacks other group members, deflates the status of others and shows aggressive behaviors
- Blocker — resists movement by the group
- Recognition seeker — calls attention to him or herself
- Self confessor — seeks to disclose non-group related feelings or opinions
- Dominator — asserts control over the group by manipulating other group members
- Help seeker — tries to gain the sympathy of the group
- Non-participator — chooses not to participate in group discussions

You need to be careful when labeling dysfunctional roles, because these behaviors may be subject to interpretation. You may see a particular group member as a “blocker,” when they in fact see themselves as a “reality tester.” It is important to be aware of the lens through which you view the behavior of others.

## WHICH ROLE WILL YOU CHOOSE?

The role a person plays largely depends on his or her personality, preferences and abilities. Some roles will come more naturally than others, and you may fill more than one role at the same time. For example, you could be an ‘Opinion Seeker’ and an ‘Encourager’ at the same time. In other cases, you may also share roles with others members of the group.

Within group communications, the qualities that members bring to a group affect their ability to accept influence uncritically, increase cohesiveness, mediate conflicts, and solve problems. These characteristics are another important dimension that affect the roles we play within a group. Our credibility and our attitudes can influence our behaviors, and the way others perceive us.

Likewise, a personality trait is a tendency to behave in a consistent way in different situations. These traits are also important in determining our role in group communications. We can classify the numerous personality traits into six broad categories. They appear in some combination in each of us; however, your predominant trait will influence how you interact within a group.

- *Authoritarianism.* An **authoritarian** person thinks that there should be status and power differences between people. As group members, these people use their power when in a position of leadership. They are firm, demanding, directive, and not likely to accept the ideas of others.
- *Social Sensitivity.* This trait, also known as empathy, is an understanding of the feelings of others. It shows a person’s ability to look at what is happening from the perspective of the other person.
- *Superior Tendencies.* Group members who possess high **ascendant** tendencies tend to assert themselves and exert dominance over

others. These group members influence group decisions; however, they tend to make remarks that build themselves up at the expense of others and display stern behavior that works against success in dealing with others.

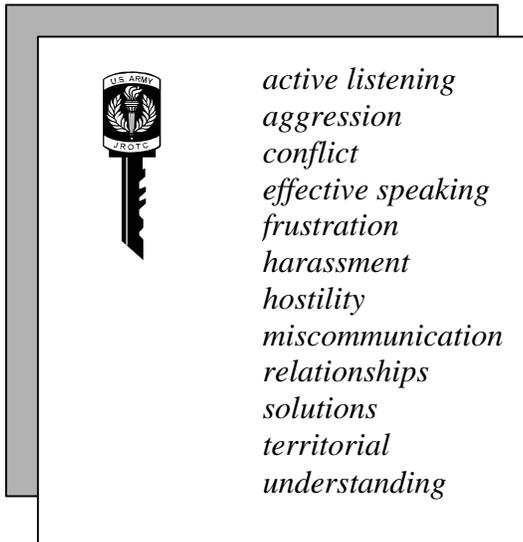
- *Self-reliance and Dependability.* Group members who show these traits demonstrate a sense of responsibility. They possess such characteristics as integrity, self-esteem, self-reliance, and self-control. They are successful in helping the group to accomplish its goals. People with high self-esteem tend to resist influence attempts and threats made by others; whereas, people with low self-esteem tend to be influenced by someone who has higher self-esteem.
- *Unconventionality.* Unconventional group members do not behave in expected ways. They do not seem to be interested in the group’s objectives, and their behavior keeps the group from its work.
- *Emotional Stability.* Anxiety and adjustment are two widely studied indicators of emotional stability. An anxious group member will worry about some uncertain or future event although there is no apparent cause for his or her worry. On the other hand, if an individual is well adjusted, relating well to his or her environment, that person appears to have emotional control and stability. Adjustment is positively related to group effectiveness, motivation, development of cohesiveness, and high morale.

## CONCLUSION

The spectrum of roles within the group communication process is much richer than just ‘leaders’ and ‘followers’. By increasing our awareness of the diversity of those with whom we interact, and stretching our own capacities, we can develop the skills to communicate effectively and productively within a group.

# CONFLICT RESOLUTION

## LESSON 1: FINDING SOLUTIONS: CONFLICT



### INTRODUCTION

What does **conflict** mean to you? Is it frightening or exciting? Is it interesting or unpleasant? Do you typically avoid it, or are you more likely to confront it?

It is inevitable that you will encounter many different forms of conflict throughout your lifetime. In order to make appropriate decisions and gain confidence in resolving conflicts, you must be able to:

- Recognize potential conflict situations before they occur.
- Recognize the warning signs and the sequences of events that can fuel conflicts.
- Predict possible consequences and stay attuned to ways to stop the conflict from occurring (or escalating).

This chapter introduces basic guidelines to managing conflicts. You will learn about the

causes of conflict, what *you* can do to prevent them, as well as the importance of maintaining good communication in these situations.

### WHAT IS CONFLICT AND HOW DOES IT AFFECT US?

Conflict can be defined as any situation where incompatible activities, feelings, or intentions occur together. It is an everyday occurrence at home, at school, on the job, or anywhere there are people with different beliefs, values and experiences.

If not carefully managed, conflict can escalate to violence and harm your personal **relationships**, creating wounds that will never heal. When conflict is avoided, and important issues are left unresolved, it may lead to resentment, creating a tense environment. However, if you take the necessary steps to resolve a conflict, you may find that ‘clearing the air’ reduces tension and brings about an **understanding** that makes the relationship more open and honest in the future.

We most often find ourselves in conflict with those with whom we spend the most time: parents, friends, co-workers, teammates, etc. You must learn to recognize that your long-term relationship with these people is more important than the result of any short-term conflict. Calmly discussing issues may often bring about a quick resolution or a realization that a problem doesn’t actually exist.

### CAUSES OF CONFLICT

There are many ways in which conflicts can begin: misunderstandings, embarrassment, hurt pride, prejudice, and peer pressures are just a few. Most of the factors or situations that lead

to conflict can be classified as resulting from:

- Varied perspectives on the situation
- Differing belief systems and values resulting from personal background and accumulated life experiences
- Differing objectives and interests

If you recognize a potential conflict situation early, you may be able to prevent it from escalating into a dangerous fighting situation. By applying conflict management techniques, you will be able to reduce the levels of anger and **frustration**, which will make it easier to resolve the problem.

### TYPES OF CONFLICT AND THEIR WARNING SIGNS

In order to make good decisions and effectively manage conflict in your life, you must be able to recognize the warning signs of a potential conflict situation. Most types of conflicts belong to one of the five categories listed below:

- Relationship — conflicts that occur because of strong negative emotions, stereotypes, **miscommunications**, or repetitive negative behaviors. **Harassment** is a relationship conflict.
- Data — conflicts that occur because people are misinformed or lack information to make good decisions. If you are late to the drama club meeting because you thought it started at 2:00 pm, but it actually began at 1:00 pm, then you might find yourself in a data conflict.
- Interest — conflicts that result when one party believes that in order to satisfy his or her needs, the needs of an opponent must be sacrificed. A conflict over what you perceive to be an “unfair situation,” would be an interest conflict. For example, if your whole soccer team had to run an extra five

miles at practice because John, a teammate of yours, was late for the second time this week, you would have an interest conflict.

- Structural — conflicts that arise out of limited physical resources (including time), authority, geographic constraints, organizational changes, or other external forces. A **territorial** dispute is a structural kind of conflict. Similarly, if you are scheduled to begin work at your part time job at 3:00 pm on Wednesdays, but band practice is not over until 4:00 pm, then you have a structural conflict.
- Value — when people attempt to force their own personal beliefs or values on others. For example, if a friend keeps asking you to help him cheat on his chemistry exam, you might have a value conflict on your hands. Another example of a value conflict would be the debate over capital punishment.



Although, there are many types of conflict that you may inevitably encounter, we are going to examine three common types of conflict that you may find at school, home or in your community: sexual harassment, other personal harassments (being picked-on), and “unfair” situations. Below is a description of each of these kinds of conflict and some of the warning signs that accompany them.

## *SEXUAL HARRASMENT*

Four out of every five students say that they are sexually harassed often or occasionally. Sexual harassment is unwelcome behavior of a sexual nature that is both demeaning and wrong. These unwelcome behaviors are sexual advances, requests for sexual favors, and other physical, verbal, or visual conduct of a sexual nature.

Specifically, it includes: explicit sexual propositions; suggestive comments; sexually oriented kidding, teasing, or practical jokes; offensive or obscene language or gestures; displays of offensive or obscene printed visual material, and physical contact of a sexual nature. The most common form of sexual harassment, although oftentimes used unintentionally or subconsciously, is to address a person as “dear,” “honey,” “sweetheart,” or some other “term of endearment.”



## *OTHER PERSONAL HARRASSMENTS (BEING PICKED-ON)*

Harassers use verbal, physical, or visual means to annoy or “pick on” someone, possibly because of their race, ancestry, national origin, religion, age, physical or mental disability, sex, or sexual orientation. Oftentimes, harassers like to pick on people who lack self-confidence, by using derogatory remarks, slurs, jokes, cartoons, pictures, or certain gestures that demean, ridicule, or torment the individual.

## *UNFAIR SITUATIONS*

“That’s not fair!” is a cry that can represent every aspect of your life’s development. It involves following rules regardless of whether you like them or not, reaching compromises with others, and respecting the rights of others. When someone makes a decision that may be fair for some, yet unfair for you and others, it is oftentimes hard to accept the answer to the questions, “From whose perspective was that decision made?” or “What criteria was used to make that decision?” Remember, fair does not mean equal.

## **STRATEGIES FOR RESOLVING CONFLICTS**

You have control over how you choose to deal with conflict. In some cases, the best course of action is to walk away, or do nothing at all. You may find it best to ignore the conflict if:

- The issue or situation is unimportant or trivial to you.
- You will probably not see the other person again.
- The other person is just trying to provoke a fight.

- The timing is wrong and a cooling off period is needed.

Although choosing to walk away from a conflict may be difficult, doing so in the situations described above, will demonstrate a great deal of maturity and self-control.

In other cases, however, it is best to confront the conflict. Avoiding the issue will not resolve it, and unresolved, lingering conflict can lead to resentment, **hostility**, and may even escalate to violence. In these situations, using a process to manage the conflict and establishing certain ground rules, will help you to resolve the issues peacefully. The basic steps in managing conflict are:

1. Prepare yourself to deal with the conflict
2. Find a mutually agreeable time and place
3. Define the conflict
4. Communicate an understanding
5. Brainstorm to find alternate solutions
6. Agree on the most workable solution



### *PREPARE TO DEAL WITH CONFLICT*

We all experience emotions in reaction to conflict. These emotions can include nervousness, fear, embarrassment, anger, frustration, and anxiety. These are strong feelings that can propel you into inappropriate or destructive behavior. Take time to identify your feelings. If not acknowledged, these emotions will become a barrier to resolving the conflict.

We need to maintain emotional control in order to communicate in a calm, even tone. Screaming and name-calling will only serve to worsen the situation. Some techniques that people use to remain calm and release tension in stressful situations include: deep breathing, vigorous exercise, counting to 10, pounding or yelling into a pillow, and talking to a friend.

### *FIND A MUTUALLY AGREEABLE TIME AND PLACE*

Choose a place to discuss the conflict that is comfortable, and non-threatening for both of you and where you can be alone. Some people may feel compelled to act in an **aggressive** way if they have an audience.

You should also make sure that you have chosen a time when you are both calm and ready to discuss the issues at hand.

### *DEFINE THE CONFLICT*

Two of the most important skills that you need to develop in order to effectively manage conflict are: **effective speaking** (expressing your needs, feelings, and reasons) and **active listening**. In other words, your ability to send and receive clear messages. Each person involved in the conflict must communicate, “their perspective or feelings on the situation,” “what they want,” and “why.” Be sure to describe the conflict in clear, concrete terms, focusing on behaviors, feelings,

consequences, and desired changes. Be specific and start your sentences with “I,” not “You.”

“I” messages are statements, beginning with “I,” that tell how you feel. They are the most appropriate way to express your feelings in a calm and respectful manner. By using “I” messages, your communications do not take on a blaming or accusatory tone. “I” messages have three parts: to state a feeling, to describe a specific behavior, and to state how it affects you. An example of the parts of an “I” message are shown below:

I feel (*state feeling*) when you (*describe specific behavior*) because (*state how it affects you*). For example, “I feel *hurt* when you *tell someone something I told you in secret* because *I didn’t want anyone else to know.*”

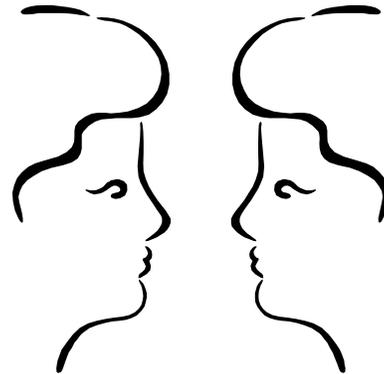
Some more guidelines for conflict resolution using Winning Colors communication tools are described later in this chapter.

### COMMUNICATE AN UNDERSTANDING

In addition to defining the conflict, each party must also feel that they have been heard and understood. This is where active listening comes into play. Request that the other person describe how the situation looks and feels from *their* perspective. Listen to really understand the other person’s feelings and needs. Try to step back and imagine how you would feel if you were in the other person’s shoes. Make sure that the other person knows that you are trying to understand his or her point of view. You may want to repeat back your understanding of what you have heard, or you could say something like, “I know this issue is important to you because...” Sometimes, however, you will find that it is necessary to agree to disagree.

### BRAINSTORM TO FIND ALTERNATE SOLUTIONS

Finally, in order to resolve a conflict, both of you must identify possible solutions. When identifying potential **solutions** to the conflict, it is important to remain positive and be open to compromise. Remember that the conflict is a problem for both of you to solve together, not a battle to be won. You should take turns offering alternative solutions, examining the consequences of each solution. Be creative and focus on solutions rather than past blame. Do not be judgmental of the other person’s ideas.



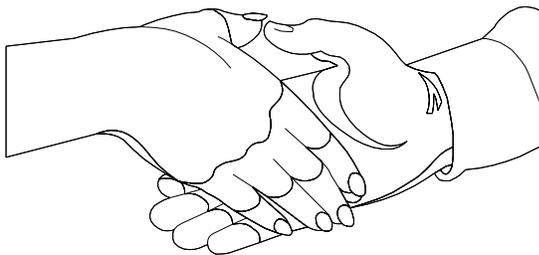
### AGREE ON THE MOST WORKABLE SOLUTION

In order to reach an agreement on a solution, you both need to be committed to resolving the conflict. The conflict ends when both parties reach an agreement that meets everyone’s needs, and is fair to both of you.

### PUTTING IT ALL TOGETHER

Use the chart below as an aid to help you remember the steps for effectively managing conflict in your life.

<i>I want...</i>	You both have the conflict. You must work together to solve it constructively and respectfully.
<i>I feel...</i>	You both have feelings. You must express them to resolve the conflict. Keeping anger, frustration, hurt, fear, or sadness inside only makes the conflict more difficult to resolve.
<i>My reasons are ...</i>	You both have reasons for wanting what you want and feeling as you do. Ask for each other's reasons and ensure you understand them. Recall that at times you must <u>agree</u> to <u>disagree</u> .
<i>My understanding of you is...</i>	You both have viewpoints. To resolve the conflict constructively, you must see the conflict from both sides.
<i>Maybe we should try...</i>	You both need to come up with wise agreements that make both people happy.
<i>Let's choose and shake!</i>	You <u>both</u> must select the agreement that seems fair. You should not agree on a solution that leaves one party happy and the other unhappy.



If you cannot reach an agreement, the conflict may need to be resolved through mediation or arbitration (*These topics will be discussed in Lesson 3*).

**COMMUNICATION SKILLS**

While miscommunication can lead to conflict, good communication is the key to settling problems peacefully.

Language is extremely powerful. If you have ever heard the phrase “fighting words,” you know that there are some words that can escalate a conflict, and others that can be used to diffuse one. An example of some fighting words are: never, always, unless, can’t, won’t, don’t, should, and shouldn’t. Likewise, good communication is blocked when either party blames, insults, puts the other down, interrupts, or makes threats or excuses. On the other hand, words that can be used to de-escalate a conflict include: maybe, perhaps, sometimes, what if, seems like, I feel, I think, and I wonder. Try to use these words when facing a conflict situation.

Non-verbal communication, or body language, also has a tremendous impact on those who observe and interpret it. It can encourage or discourage a fight. When trying to resolve a conflict you should maintain eye contact, and use a tone of voice that is sincere and not intimidating or sarcastic. You should also keep your legs and arms uncrossed, and your fists unclenched.

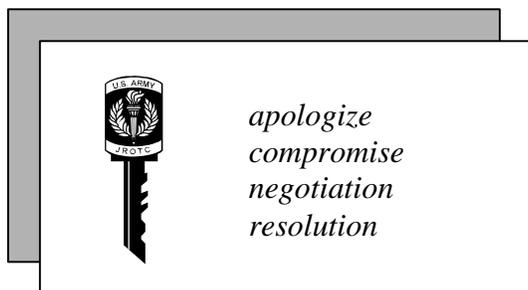
Successful conflict resolution and negotiation depends on the use of positive communication skills.

**CONCLUSION**

Conflict is a natural part of life. It can be positive or negative depending on how you

choose to manage it. By recognizing potential conflicts and their warning signs, and using conflict management strategies to help you make appropriate decisions, you will have confidence and be better prepared to deal with conflict in the future.

## LESSON 2: FINDING SOLUTIONS: CONFLICT AND BEHAVIOR



### INTRODUCTION

The success or failure of any conflict **resolution** depends on the attitudes and behaviors of the people involved in the conflict. Those skills, which promote positive, non-violent, conflict resolution, are:

- Awareness of others
- Awareness of the distinctions between self and others
- Listening skills
- **Compromise**
- Ability to express one's own thoughts and feelings
- Ability to respond to the feelings of others

These are skills that you will need to develop throughout your life. Although, conflict is inevitable, you have control over your own response to the situation, and your actions can either diffuse or escalate the conflict. Remember that if you react defensively, or judgmentally, it can trigger the same response in others.

## WINNING COLORS® AND CONFLICT RESOLUTION

Effective communication skills are a key factor in the conflict resolution process. Sometimes, in order to resolve a conflict, you need to go beyond your own comfort zone of preferred behaviors to facilitate good communications with the other party.

As we discussed in Chapter 1, Winning Colors® is an assessment tool, which is used to classify behaviors into four dominant categories:

- **Planners.** Planners are quiet, and introspective. They like to be correct and are very detail oriented. They have excellent listening skills. They are calm, cool, and collected on the outside. They are likely to hide their feelings.
- **Builders.** Builders are natural leaders. They are up front with people, expressing themselves openly and directly. They like rules, law, order, and direction, and do not hesitate to tell other what they should do. Builders are typically punctual, dependable, and loyal.
- **Relaters.** Relaters are very social. They want to be liked and they love to talk. Relaters share their ideas and feelings readily. They work well in teams and need to be shown appreciation.
- **Adventurers.** Adventures are action oriented. They are bored unless there is fun, excitement, and things are moving. They live in the present. They are flexible and thrive on spontaneity, and do not like structure.

Using an assessment tool like, Winning Colors® will not only help you evaluate your own behavioral strengths and weaknesses, but

it will also give you valuable insights into the behavioral characteristics of the people you interact with on a daily basis. Surely, no one is going to walk up to you and say, “My name is Bob and I’m an Adventurer,” so you will have to listen carefully, and observe clues in the other person’s body language and speech patterns.

With insight and awareness, you will be able to adapt your communication skills, and behavior, to be able to negotiate a peaceful solution to a conflict.

### HOT BUTTONS

By observing and identifying the behavioral characteristics and tendencies in others, you can determine how to best communicate with them to resolve a conflict. For instance, some people respond better to facts and figures, while others are more concerned with feelings and emotions. “Hot buttons” are strategies that you can use to communicate in a way in which the other person is more likely to hear you, understand you, and respond positively. In other words, it is important that both persons involved in a conflict “speak the same language.” To illustrate this metaphor, imagine trying to **negotiate** a settlement if you were speaking English and the other party was speaking Chinese. You would not get very far.

When you are speaking to someone who exhibits *planner* behaviors, you succeed by using *planner* ‘hot buttons’. The same is true if you wish to communicate successfully with those who most clearly exhibit *builder*, *relater*, and *adventurer* behaviors.

#### HOT BUTTONS FOR PLANNERS

- Take a serious approach.
- Show interest, be patient, calm, and collected.

- Give ample warning before confronting them with a conflict.
- Supply details and allow more time for decisions.
- Try not to impose time constraints.
- Respond in terms of causes rather than exterior effects.
- Be prepared for interior understanding rather than exterior caring.
- Show that you are competent and striving to understand the subject.
- Be a good listener and sounding board.
- Avoid silly talk and babbling.
- Respond with new and innovative ideas.

#### HOT BUTTONS FOR BUILDERS

- Take a bottom-line approach.
- Explain directions step-by-step.
- Let them know what is expected of them.
- Do not repeat unless requested to do so.
- Be concise and clear in your speech.
- Know the hierarchy of command and give it proper deference.
- Look for law, order, and routine.
- Make sure your actions deliver results.
- Be prepared.

#### HOT BUTTONS FOR RELATERS

- Take a friendly approach.
- Talk in a personal way and volunteer to help out.
- Show genuine concern, smile, and be kind.
- Respect their feelings by not imposing your feelings on them.

- Show personal appreciation.
- Give them opportunity to express themselves.
- Validate their emotions and feelings.

### *HOT BUTTONS FOR ADVENTURERS*

- Take a light-hearted/fun/action approach.
- Move it; be an action-centered person.
- Keep the discussion in the here and now.
- Be willing to change and be flexible.
- Show you are competitive and a winner.
- The more spontaneous you are, the more you will be appreciated.
- Having an easy-come-easy-go manner with good humor wins you points.
- Give immediate results or feedback whenever possible.
- Avoid theoretic explanations.
- Create result-oriented action plans consistent with common goals.

### **EVALUATING CONSEQUENCES**

Your response to a conflict should not be a “knee-jerk” reaction, but rather a carefully considered response. It is important to think through the consequences of your behaviors before you act on them. If you act hastily, in anger, your behavior may add fuel to the fire and conflict could escalate to violence.

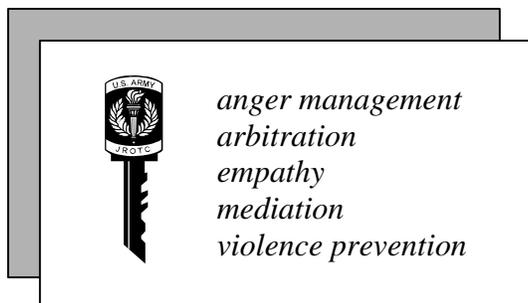
One method of analyzing a response to a conflict is to list three or more alternative solutions at the top of a sheet of paper. Then record all of the positive and negative consequences of each option. This forces you to take the time to brainstorm, and predict all the possible outcomes you could expect. The result will be a more reasonable and well thought out response.

Your goal should be to agree on a non-violent solution in which both party’s needs are met. Remember, if the conflict is over something trivial, or if you will not have contact with the person again, you could choose to ignore the conflict or to **apologize** to settle it peacefully.

### **CONCLUSION**

Effective communications are essential to successful conflict resolution and negotiation. Sometimes we misinterpret what others say, or vice versa. However, if we practice self-awareness, and seek to understand others, we will be much more successful in maintaining healthy relationships. Understanding your own communications style and being able to appreciate others, and adjust accordingly, will enable you to resolve conflicts successfully.

## LESSON 3: FINDING SOLUTIONS: MEDIATION



### INTRODUCTION

National Center for Education Statistics report that approximately 37% of high school students have been in a physical fight within the year and 18% of high school students have carried a weapon at least once within the past 30 days. These alarming statistics illustrate the fact that the instances of violence have become all too common in our schools. Safety has become a primary concern, in what is supposed to be a non-threatening learning environment.

One of the best ways to handle the violence in schools and prevent its spread throughout the community is to defuse disputes, and resolve the conflict before it turns violent.

In Lesson 1, you learned a six-step process to effectively manage conflict and negotiate a fair solution; however, what if the negotiation is unsuccessful, and you cannot reach an agreement to settle the conflict? What other steps can you take to prevent a conflict from escalating to violence?

In this lesson, you will learn how you can take personal responsibility for **violence prevention** by:

- Practicing **anger management** techniques to control your emotions and help you resolve conflicts in a calm, rational manner.
- Acting as a peer mediator to help others resolve conflicts in a non-violent manner

### ANGER MANAGEMENT

Anger is normal, and a universal emotion that everyone experiences from time to time. When you are angry, you experience strong feelings that can propel you into inappropriate or destructive behavior. Anger, if left unchecked, can easily spiral out of control and lead to violence.

Your response to anger, however, is completely within your control. Mastering the techniques of anger management will help you to keep calm in a tense situation, and avoid violence.

### ANGER MANAGEMENT TECHNIQUES

- Take time to calm down. We need to maintain emotional control in order to communicate in a calm, even tone. Yelling and insulting will only serve to worsen the situation.
- Identify the source of your anger, and know what triggers it.
- Use words to describe your needs and explain your feelings.
- Turn your anger into energy. You could: exercise vigorously, write down what is making you angry, daydream about things that make you happy, do something useful for yourself or for someone else, pound or yell into a pillow, or blow up a balloon. (Keep a list of the things that you can do at different times so you do not have to think about what to do when you become angry.)

- Share your angry feelings with a friend, teacher, parent, coach, counselor, or clergy. This always proves to be an excellent antidote.

Anger management skills must be practiced throughout your lifetime. Once you have gained control over your anger, you can work toward resolving conflict in a non-violent way.

## MEDIATION

What would happen if you tried to resolve a conflict yet could not brainstorm any solutions that were acceptable to both parties? Or if the emotions became overheated, to the point where you could no longer continue negotiations? If you fail to resolve a conflict, through negotiation, as discussed in Lesson 1, the conflict may need to be resolved through mediation or arbitration. Mediation, from the Latin word meaning “middle,” literally means putting another person in the middle of the dispute. The mediator is an independent third party that acts as a facilitator, and can be another student. In fact, studies show that peer mediation programs, where students are trained to resolve disputes of other students, have proven to be relatively successful. The goal of mediation is to help the disputing parties find and agree on a win-win solution in which each party’s needs are met.

Mediation is usually contrasted with **arbitration**, which should be used as a last resort. Arbitration is the submission of a conflict to a disinterested third party, an adult such as a teacher or principal, who makes a final and binding judgment to decide who is right. Typically, arbitration leaves at least one person with anger about the decision and resentment toward the arbitrator. However, both people involved in the conflict should abide by the decision made by the arbitrator, and agree to “let go of the conflict” with no hard feelings toward either person.

## ROLE OF A MEDIATOR

A mediator facilitates a discussion between the parties with the dispute, by asking open-ended questions that will encourage a discussion of solutions. Unlike an arbitrator, mediators will not issue orders, find fault, investigate, impose a solution, or make decisions for the parties. Mediators try to help the people with a dispute reach their own agreement, and achieve practical, sustainable resolutions. However, a mediator cannot enforce agreements once they have been reached. It is up to all parties to enforce and implement their own agreements.

As a rule, mediators should:

- Be honest
- Remain objective
- Act in good faith
- Show **empathy**, but avoid becoming emotional
- Use good communication skills
- Listen effectively
- Summarize accurately
- Think critically

As with any conflict situation, mediators should not get involved in a heated argument that has the potential for turning violent at any moment.

## STEPS TO MEDIATING A CONFLICT

Have you ever helped two friends reach an agreement, or helped to settle an argument between siblings? If so, you have mediated a conflict. Mediation is a simple, straightforward process. The procedure for a successful mediation is outlined below:

## 1. Introductions

- Explain the mediator's role
- Mediator emphasizes neutrality
- Establish the ground rules such as: confidentiality, respect, no name-calling or vulgar language, no interruptions, etc.
- Explain the steps of a mediation
- Ask for questions

## 2. Tell the story

- Both parties tell their side of the story to the mediator
- Mediator summarizes each party's point of view including facts and feelings
- Mediator makes sure that each party understands the conflict

## 3. Explore possible solutions

- Ask both parties how they can solve the problem
- Write down all solutions
- Check off only those solutions that both parties can agree to

## 4. Don't give up

- Keep trying until you can reach an agreement. You may have to trade something that one side wants for something that the other side has.
- Ask the parties to write down the agreement in their own words
- Ask all parties to sign the agreement

## *ROLE OF A BYSTANDER*

Even if you are not personally involved in the conflict as one of the disputing parties or the mediator, you have a responsibility to do your part to prevent violence by:

- Refusing to spread rumors
- Refusing to relay threats or insults to others
- Staying away from potential fight scenes
- Showing respect for people who use good judgment in ignoring insults or other trivial forms of conflict

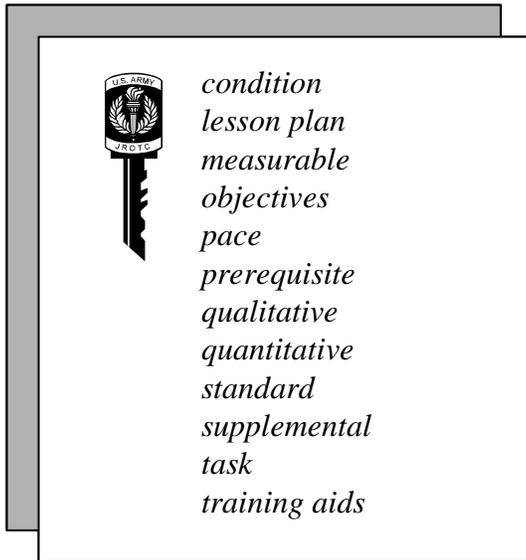
Appeal to your peers to help control a situation, and reduce the potential for violence.

## **CONCLUSION**

We all have a responsibility to try to resolve conflicts in a productive and non-violent way. When a conflict occurs, try, first, to negotiate a resolution. If that fails, involve a classmate or teacher to mediate the conflict. By negotiating and/or mediating conflicts, you are developing valuable anger management, problem-solving, and conflict resolution skills that you will use throughout your life.

## TEACHING SKILLS

### LESSON 1: PREPARING TO TEACH



#### INTRODUCTION

Being an instructor, or an assistant instructor, will be a challenging experience for you. It is for anyone — even experienced teachers. Instructing may also be a little frightening.

In this lesson, you will be introduced to five critical elements that you need to consider while preparing to teach. The five critical elements are listed below:

- Motivation
- Know your material
- Lesson objectives
- Training aids
- Lesson plan

#### MOTIVATION

In order to properly teach a class, you must be motivated. Motivation is a drive that comes from within yourself. When you get excited about doing something, you will discover that you have the necessary motivation to do that task well. However, the opposite is also true. If you do not get excited about the task, you will lack the necessary motivation and drive to perform the task successfully. In teaching, just doing an okay or a satisfactory job is not enough. The students in your class deserve the best instruction and instructors to guarantee a solid education. Therefore, when your instructors give you the opportunity to become a student instructor, consider it a challenging and exciting opportunity.

#### KNOW YOUR MATERIAL

It is essential to know your material well so that you can effectively teach it. To do that, you must research and rehearse your subject just like you would a speech. Knowing your material well will make you more confident and self-assured in front of your class.

To gain that necessary level of confidence in yourself, you must organize your thoughts, prepare and/or review your lesson plan, make any changes as required to it, and rehearse your material. When rehearsing, practice in front of a mirror, friends, parents, video camera, or with a tape recorder. Always rehearse the material in the manner you plan to present it to the class. Doing one or a combination of these methods will enable you to **pace** your material to ensure that you have the right amount of information and that you sufficiently cover the areas that need special emphasis.

Classes have a set length and your job is to effectively cover the instruction within that period of time. If you know and rehearse your material, you will be comfortable teaching it to others. Additionally, try to relax while teaching — that will put both you and your class at ease and make them feel more comfortable with you.

## LEARNING OBJECTIVES

As a student instructor, one of your primary responsibilities is to understand the importance of learning **objectives** as they relate to the material your instructor has assigned you to teach. Learning objectives indicate what skills, knowledge, or attitudes your students should be able to accomplish once you finish the instruction. That is, learning objectives tell the students in clear, performance terms what supporting skills, knowledge, and attitudes they will need to learn as they work toward achievement of the task.



By breaking major subjects into smaller pieces, learning objectives give students smaller goals to shoot for that are less overwhelming. They provide benchmarks by which students and instructors can measure progress toward achieving the desired outcome. From an instructor's standpoint, learning objectives lay the groundwork for the development and selection of the type of

evaluation criteria the instructor should use to measure students' progress.

All learning objectives must be realistic, attainable, observable, and measurable. That is, at the end of each period of instruction, you should be able to administer a test based on the criteria of the objective and on the material you presented. Likewise, students should be able to pass a test, or at least demonstrate to the best of their ability, that they have a basic understanding of the material you presented.

**Note:** The process to develop learning objectives is by far more complex and detailed than presented here; however, this material should give you an appreciation for what learning objectives are and the basic developmental procedures.

### TASK, CONDITION, AND STANDARD

Learning objectives are clear, concise, simple, and straightforward statements that consist of three parts: **task**, **condition**, and **standard**. Do not include any extra or confusing information in a learning objective. By combining these parts, we have a properly written learning objective (as shown below):

*Given a topographic map and a coordinate scale (condition), write a six-digit grid coordinate (task) to within 100 meters (standard).*

### Task

**Definition.** The task states the action that a class, group of students, or an individual must perform.

**Characteristics.** Each task statement should:

- Begin with an action verb that will indicate how you can measure the

intended outcome. The following chart contains examples of **measurable** action verbs.

SAMPLE ACTION VERB LIST		
act	discuss	predict
answer	distinguish	prepare
apply	estimate	produce
arrange	explain	rate
build	give examples of	record
calculate	identify	report
change	illustrate	reply
choose	join	restate
classify	judge	revise
compare	justify	schedule
compete	list	select
compose	match	show
compute	measure	solve
contrast	modify	state
create	name	summarize
define	organize	use
demonstrate	outline	verify
describe	perform	write/rewrite

- Describe completely the performance students are to accomplish.
- Be clearly relevant to the task.
- Be accurate and precise.
- Avoid overlapping with other actions. A properly written task statement contains only one action that you want students to accomplish. More than one action may cause confusion, lead to poor or incomplete performance, and be difficult to measure.

### **Condition**

Definition. The condition (or set of Conditions) describes clearly and completely the circumstances under which the task must be performed.

Characteristics. The condition statement should:

- Specify exactly what you will give students to assist them in accomplishing the task, such as guidance, supervision, or other forms of help.
- List any references or memory aids that students will need while performing the task.
- Specify any restrictions or limitations.
- Identify the tools, equipment, clothing, or other resources needed to accomplish the task.
- Describe the type of environment in which students must perform the task.
- Describe any special, physical, environmental, or safety conditions that students may encounter while performing the task.

### **Standard**

Definition. The standard states how well the task must be performed.

Characteristics. The standard measures how well you expect students to perform the task by specifying the minimum acceptable level of achievement. Since instructors must be able to measure all tasks to some degree, we classify standards in two categories: **quantitative** and **qualitative**.

Quantitative standards use numbers to measure performance. By using quantitative measurements, you can evaluate how well students performed the task. Indicated below are five aspects of performance for which we can use quantitative standards.

1. *Accuracy.* If an evaluator measures performance with a measuring tool, the standard must state how close to perfection a person must perform the task; for

example, “*stretching across the baseline 4.5 inches.*”

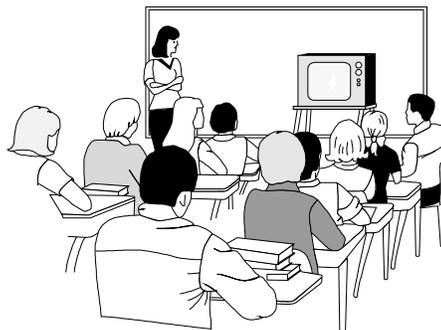
2. **Quantity.** If an evaluator measures performance in units of measure (such as the number of items, yards, pounds, dollars, miles, or rounds), the standard must indicate a quantity to the closest unit; for example, “*to within 100 meters.*”
3. **Time.** If time is an important factor in performing the task, the standard must state a specified time requirement; for example, “*within 9 seconds after hearing the alarm.*”
4. **Rate.** Rate is a quantity over a set period of time. For tasks where rates are important, the standard must specify the rate; for example, “*20 units per day.*”
5. **Completeness.** Under conditions or situations where the performance does not require a specific measurement, the standard must show a general degree of completeness. Examples of this standard include: “*...with all steps performed*” “*All pieces must be assembled in the correct relationship*” “*All key personnel must be notified*”

Qualitative standards do not use numbers to measure performance unless there is some type of rating system. Otherwise, they require the evaluator to make a judgment. An example of a qualitative standard is “*adjust the carburetor until the engine runs at its smoothest point.*” If you must use a qualitative standard, avoid vague words such as “effective,” “acceptable,” “proper,” “correct,” and “average.”

Remember, develop standard statements that are realistic, attainable, observable, and measurable. Learning objectives guide the instructor and the class through each lesson. Properly written learning objectives emphasize what the instructor should teach and what the class members should learn.

## TRAINING AIDS

**Training aids** are materials that help you teach. In fact, any item that enhances the quality of your instruction and helps you to display instructional material is a training aid. Types of training aids include computers, overhead projectors, television sets with videocassette recorders, chalkboards, hand-outs, bulletin boards, posters, etc.



In order to make a training aid effective, you must use it properly. That is, use it the way you would use a visual aid when giving a speech. Use a training aid as a part of your lesson; however, your entire lesson cannot rely on the use of training aids.

When you find a training aid that you like, rehearse your lesson with it. The following pointers will enable you to use training aids more effectively.

- A training aid should adequately support the material in your lesson.
- Do not talk to your training aids. Keep eye contact with your class as much as possible.
- Make your training aids large enough for everyone to see, and if your training aids use sound, loud enough for everyone to hear.

## LESSON PLANS

Developing an effective **lesson plan** is an important part of teaching. Without a well-written lesson plan, it would be almost impossible for you to teach in an organized manner. If you are organized, it will be easier for you to teach the lesson objectives, especially for those difficult tasks.



### EIGHT TIPS FOR LESSON PLANNING

When teaching a class, structure your presentation by following the eight tips outlined below. What is important is that you have a logical and orderly method of teaching your lesson. These eight tips will help you to capture the attention of your class, keep their attention throughout your presentation, build their respect in your ability as a teacher, and increase your self-confidence.

1. *Practice the material you plan to present to the class. Pay close attention to your pace.* Know how long each section of your lesson will take. Do not waste time. You may need that time to adequately discuss the main points or for questions and answers.
2. *Use an opening that will grab the attention of the class.*
3. *Inform the students of the lesson's learning objectives and of your expectations.* This tells them specifically what you will be teaching and how well you will expect them to know the material.

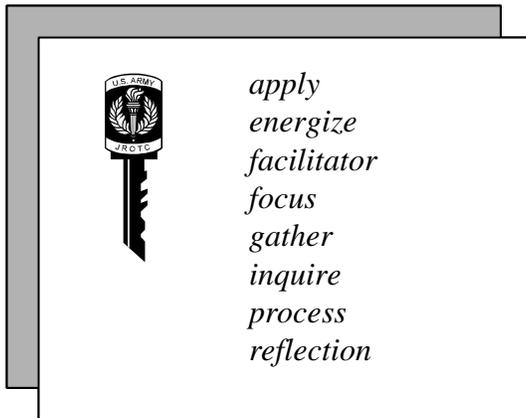
4. *Briefly review any material from previous lessons (prerequisites) that relates to the material you are teaching.*
5. *Inform or advise the students of any precautions, safety requirements, or special instructions regarding the lesson.*
6. *Present the material according to your lesson plan. Use your training aids effectively.* Describe any assignments or practical exercises you plan to give and ensure the class knows how to accomplish them.
7. *Use demonstrations and/or other forms of practical exercises, when appropriate, to reinforce your instruction.* Give your class examples that will help them understand and complete their assignments or practical exercises.
8. *Repeat any material discussed that your class did not fully understand, time permitting. Allow time for questions and answers.* That is your measurement of how well the class understood the material you discussed. However, plan to spend additional time with certain students before or after class to ensure they understand the lesson. You may wish to make a list of **supplemental** material students can review to help them better understand the lesson. Then, *conclude or review the main points of your material and the lesson learning objectives.*

## CONCLUSION

When conducting a class, or assisting someone else teach, proper preparation is essential to doing your best.

Learn the content, create observable and measurable objectives, identify the training aids you will use, develop a lesson plan, and motivate yourself.

## LESSON 2: USING AND DEVELOPING LESSON PLANS



### INTRODUCTION

During your life, both in school and out, you may be called upon to instruct others about something on which you are an expert. It is important to know how to plan and execute a lesson.

Lesson plans are essential tools used for teaching. Teachers use a lesson plan like an outline to organize their thoughts and the information they plan to present to a class. This organization helps to create a degree of standardization in the presentation of learning objectives by instructors around the world. Consequently, a standardized lesson plan would show these teachers:

- What material they should teach
- To what extent they should teach the material
- In what sequence they should teach the material.

As a result, different teachers using the same lesson plan teach the same learning objectives and conduct the class in similar ways.

### THE FOUR-PHASE LESSON PLAN

Some lesson plans consist of four phases:

- Inquire
- Gather
- Process
- Apply

#### *INQUIRE PHASE*

The purpose of the **Inquire** Phase is to determine the lesson's starting point. As a teacher, you need to determine what students already know or don't know about the lesson content. Knowing the answers to the following questions will help both you and your students understand their current level of knowledge.

- What do students know?
- What don't they know?
- What do students misunderstand?
- What are their past experiences?
- What do students want to know?
- What is the purpose of the lesson?
- How motivated are the students to learn the content?
- What are some practical reasons for students to participate in the lesson?

During this phase, you may wish to use an icebreaker or energizer in your lesson. These are physically active games or other activities that increase group interaction, promote a sense of team, generate laughter and a sense of fun, and introduce the concept or lesson objectives.

*GATHER PHASE*

Once you determine the lesson's starting point, you are ready to help your students gather information about what they need to know about the subject matter. You want to be able to provide the students with the important facts and concepts so they may have a better understanding and/or improve their skills.

The purpose of **Gather** Phase is to research and collect information from a variety of sources, to synthesize information, to evaluate existing information, to collect data, to evaluate ideas, or to observe new skills. Some important questions you can ask during this phase are:

- What new and essential information or new concepts did the students find?
- What are some new, critical skills?
- What connections or associations can be made?
- What can students do to make sense of the new information?
- What is the best way to gather the information?
- What new understandings can students construct?

*PROCESS PHASE*

The third phase is called the **Process** Phase. The purpose of this phase is to use the new information, practice new skills, and engage in different activities. The following questions can help you and your students.

- What can students do with the information?
- How can students demonstrate their understanding?

- What ways can students show relationships among the data or concepts?
- How can students practice and improve their skill(s)?
- What can students do to reinforce their understanding of the new concept?
- How can students ensure the new information is stored in long-term memory?

*APPLY PHASE*

The purpose of the **Apply** Phase is to help students make real-life applications of the new information or ideas. Students can also consider ways to integrate the lesson concepts or skills with other curriculum areas. They also plan ways to transfer their learning into personal use outside the classroom. Questions that can help both the instructor and students during this phase are:

- What else can be done with the information?
- What else is needed to make the information usable?

**THE THREE COMPONENTS OF EACH PHASE**

There are three components that are common to each of the four phases in the lesson plan. They are Direct Student Focus, Learning Activity, and Reflection.

*DIRECT STUDENT FOCUS*

As a teacher, you have a responsibility to help your students **focus** on specific elements of the learning activity. You will guide their thought processes and help them focus on key processes or content during the learning activity. You will eliminate or filter extraneous information so students can direct

their attention to what is critical for their learning.

For example, if the students watch a video, you will identify specific elements of the video on which to focus; if you have the students read a chapter in a book, you should list the details you expect them to extract from their reading; if the students do research on the web, you can help clarify the research topics or important information needed from the research; etc.

### *LEARNING ACTIVITY*

Learning activities may appear in many guises. As a teacher, you should plan activities that best present the information and allow students the opportunity to participate in the learning process.

If you are in the role of teacher, have students engage in active learning experiences that assess their current level of understanding of the lesson content, their level of interest in the lesson, and their goals for their own learning. Appropriate Inquire Phase activities include:

- Agree/disagree worksheets
- K-W-L charts
- Analogies or metaphors
- Pre-quizzes or pre-tests
- ‘Group’ graph or ‘4-corners’
- Panel discussions
- Debates
- Homework reviews
- Other

Appropriate Gather Phase activities include:

- Graphic organizers
- Computer searches

- Jigsaw
- Interviewing experts
- Demonstrations
- Generating examples
- Socratic questioning
- Constructivist questions
- Other

Transference of information occurs during the learning activity. The student obtains information from you and fellow classmates and interacts with the new material. Practicing new skills helps the student evaluate the importance and usefulness of the information and understand how it connects to other things they know. Students also have an opportunity to demonstrate their grasp of the lesson material. Appropriate Process Phase activities include:

- Games
- Laboratory experiments
- Role play
- Peer teaching
- Rehearsal
- Simulations
- Reciprocal teaching
- Graphic organizer
- Other

As the **facilitator**, you disseminate information, direct student activities, observe performance, and answer student questions.

Have students engage in active learning experiences that help them transfer the new information or skills outside the classroom. Ask students to consider ways that the new information can be applied to their everyday lives and how it connects to what they are

learning in other classrooms. They can research the effectiveness of the new information or skills and evaluate their usefulness. Appropriate Apply Phase activities include:

- Action research
- Field trips
- Interviews
- Portfolios
- Student-designed homework activities
- Personal goals and objectives
- Creative connections
- Problem-based projects
- Other

### *REFLECTION*

As the teacher, ask questions that help students think about, reflect on, or make sense of their learning experiences. Having students discuss or write down what they understand, helps them clarify their thinking and improve their understanding, as well as strengthen their memory connections. It is during this **reflection** process that students begin to understand the importance and purpose of the learning activity. Reflecting also helps the brain store the information into long-term memory.

### **CONCLUSION**

For teachers, lesson plans are the building blocks used to help organize thoughts and information. The Four-Phase Lesson Plan was devised to facilitate the planning process. As you develop each phase of your lesson plan, remember to include the following components: Direct Student Focus, Learning Activity, and Reflection. If you are called upon to instruct others, your audience will benefit from this well-organized approach.

## LESSON 3: DELIVERING INSTRUCTION



*brainstorming*  
*case study*  
*coach-pupil exercises*  
*conference*  
*discussion*  
*facilitate*  
*gaming*  
*group performance*  
*independent exercises*  
*lecture*  
*practical exercises*  
*role-play*  
*team practical exercises*



### TYPES OF TEACHING METHODS

#### INTRODUCTION

From time-to-time, you may be required to present a portion of the course content. When this occurs, you will need to know some of the finer points necessary to teach that instruction.

Recall that in *Preparing to Teach*, you learned how to: prepare yourself to teach, develop learning objectives (consisting of tasks, conditions, and standards), and use training aids. In *Using and Developing Lesson Plans*, you learned how to develop four-phase lesson plans (inquire, gather, process, apply). You may want to review all or a portion of that material before proceeding with this lesson.

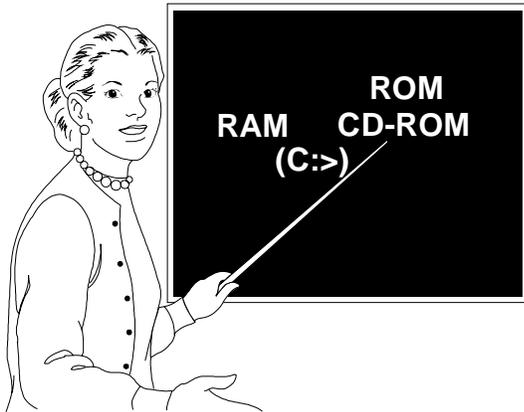
In this lesson you will learn different teaching methods and when to use each method, such as demonstration and lecture, five practical exercise formats, and the rehearsal process.

The method of instruction is how you choose to conduct your class. Sometimes, the subject you are teaching dictates which method to use. There are many different types of instruction from which to choose.

#### LECTURE

The **lecture** is an informative talk given to a class. During a lecture, the teacher does most of the talking; questions and answers usually occur at the end of the lecture. Because the teacher limits the interaction during the presentation, this method provides the fastest dissemination of information.

Use lectures when the subject you are teaching is unfamiliar to your class and it is the best method for preparing students to practice the task. Generally, this method involves learning knowledge-based information. Knowledge-based information is that which you need to know or understand. Examples of JROTC subjects for which you might use a lecture are *History*, *Citizenship*, or *Technology Awareness*.



When preparing for a lecture, be sure to: research your topic, organize your thoughts using the outline of the lesson plan, and rehearse. Remember to use your training aids while practicing. Ensure that you are comfortable with your topic since you will be doing most of the talking.

The question and answer session at the end of the lecture gives your class the opportunity to ask for clarification or additional information, and it gives you the opportunity to reemphasize the lesson learning objectives.

### *DISCUSSION/CONFERENCE*

There are two names for this method of teaching. During a **conference**, the instructor involves the entire class in a **discussion** of the subject being taught by asking leading questions to get the class to think about and discuss the main points.

This method of instruction is more interesting than a lecture and is ideal for subjects such as current events, topics that require practical exercises (such as *First Aid* and *Map Reading*), and topics where a majority of the class is having difficulty learning.

Experienced teachers recommend using a conference when conducting reviews because it enables them to ensure that the class is comfortable with the text material.

### *DEMONSTRATIONS*

**Demonstration** is a method of instruction that requires class participation. You will use this method to show the class how to do a task and to have them practice performing the task. This method holds the students' interest because they are actively involved in the learning process.



Advance planning and preparation are especially important for demonstrations to ensure that everything goes smoothly, and to avoid interruptions or problems that would make the demonstration less realistic.

### *PRACTICAL EXERCISES*

The **practical exercise** is a type of instruction where a learner performs, under controlled conditions, the operation, skill, or procedure being taught. In a practical exercise, class members learn by doing. It is one of the most effective methods for teaching skills. Practical exercises are often used in conjunction with other methods, such as after a lecture or demonstration.

Demonstrations and practical exercises lend themselves to classes like *Leadership Lab*, *First Aid*, *Map Reading*, and *Cadet Challenge*.

You will learn more about practical exercises later in this lesson.

### *BRAINSTORMING*

**Brainstorming** is a problem-solving technique in which instructors give participants a problem and have them bring into the discussion any ideas that come to mind. All ideas are gathered and recorded, without evaluation, before any are discussed. Preferably, the ideas are recorded someplace where all the participants can see them (for example, on a flipchart, whiteboard, or chalkboard).

In some situations, you may limit idea gathering to 5-15 minutes. After gathering the ideas, have the participants discuss them and decide on the best solution or course of action. It is your job, as the instructor, to **facilitate** this process.

In order to conduct a successful brainstorming session, you should:

- State the objectives and ground rules of the session up front so that the group members know of the session and what is expected of them.
- Encourage input from all group members.
- Recognize nonverbal cues that group members wish to have input, and respond accordingly.
- Keep the session moving and on track.
- Avoid judging any ideas offered by the group during the idea-gathering phase.

- Facilitate the group by constructively evaluating the various ideas, and in reaching consensus on a solution, idea, or course of action.



### *CASE STUDY*

A **case study** is an oral or written account of a real or realistic situation, with sufficient detail to make it possible for the learners to analyze the problems involved and determine possible solutions. There may be many right answers.

Many case study exercises involve group discussions. In this case, you should follow the same rules as described for the discussion/conference. Be prepared to provide relevant and constructive feedback.

### *GAMING*

**Gaming** consists of activities where participants compete to try to achieve or exceed a certain standard in performing a skill relevant to the learning objectives of the lesson.

## PRACTICAL EXERCISE FORMATS

In the best practical exercises, the tasks that learners perform should be as close as possible to those they will be expected to perform on their assessment or evaluation. The most common types of practical exercises include:

### *GROUP PERFORMANCE/CONTROLLED EXERCISES*

In **group performance/controlled** exercises, learners work together at a fixed rate. Everyone does the same thing at the same time. One caution with this practical exercise type is that learners may imitate the performance without actually understanding it.

### *INDEPENDENT EXERCISES*

Learners work alone at their own pace in **independent exercises**. As the instructor, you will circulate around the classroom and supervise, providing assistance and feedback as necessary.

### *ROLE-PLAYING*

In **role-playing** exercises, learners are given different roles to play in a situation, and they apply the concepts being taught while acting out realistic behavior. This type of exercise is especially useful for training interpersonal skills, such as leadership or counseling, or interactive skills in a realistic, but controlled situation.

**Note:** Role-playing can also be classified as a method of instruction

### *COACH-PUPIL EXERCISES*

In **coach-pupil exercises**, learners work in pairs or small groups, alternately

performing as instructor and student. Coach-pupil exercises are extremely useful when time is short or when there are too few instructors.

### *TEAM PRACTICAL EXERCISES*

In **team practical exercises**, learners work together as a team to perform the desired tasks. This method integrates basic skills into team skills.

## REVIEWS AND REHEARSALS

As part of your preparation for delivering instruction, you should rehearse prior to attempting to deliver the instruction. Even if you have delivered the instruction many times, rehearsing will help you get into the proper mindset and iron out any problems that you may have had in the past.



### *REVIEWS*

If you have revised or adapted your materials, review them one last time to ensure you are comfortable with their content,

format, and flow. It is also a good idea to look over your references and training aids again.

### *REHEARSE*

To help you rehearse, enlist family or friends to serve as an audience and to play the role of students. If possible, practice with all the equipment and training aids you will use in the classroom.

At the conclusion of your instruction, ask your audience to help you evaluate your performance to make sure that you iron out all trouble spots and are conducting the instruction at the proper pace.

### **CONCLUSION**

Teaching is more than just getting up in front of an audience and talking. You need to develop learning objectives and create a lesson plan identifying the best method for the presentation. Then, you need to review the material and rehearse so you become comfortable delivering the instruction.

If you are asked to instruct others, creating a lesson plan, selecting the most appropriate lesson method, and rehearsing your presentation will increase your confidence level and allow you to conduct a well-received lesson.

## LESSON 4: USE VARIETY IN YOUR LESSON PLAN



### INTRODUCTION

In the *Delivering Instruction* lesson, you learned a variety of teaching methods, some involving individual effort, and others encompassing group work.

In this lesson you will learn how to structure group exercises into a cooperative learning experience for the class.

### COOPERATIVE LEARNING STRATEGY

A **cooperative learning strategy** is one in which a team of students work with and depend upon each other to accomplish a common goal. Each team member is responsible for:

- A portion of the work, achieving an individual goal
- Instructing the other team members
- Receiving information from the other members
- Helping their teammates achieve their individual goals
- Reaching the group goal

The team members work both independently and as a group to gather,

disseminate, discuss, and incorporate information into a single cohesive element.

A cooperative learning strategy is best used when the learning goals are important, both mastery and retention is important, and the task is complex or conceptual.

As you progress through this lesson, you will learn some strategies that can help build good teamwork, strategies that can help students respond to and discuss questions raised in the lesson, strategies that can help students learn the material quickly, and some benefits of cooperative learning.

### TEAM BUILDING STRATEGIES

Teams are comprised of a group of individuals associated together in work or activity. Since you are going to form teams when using a cooperative learning strategy, it only makes sense to try and have the best teams possible. Following is a list of **team-building exercises** that you may employ to help you foster good team spirit.

#### TEAM CHEER

The team creates a cheer to be used when the group has accomplished a task and is celebrating.

#### TEAM COLOR

The team chooses a color that represents the personality of the group members.

#### TEAM EXCELLENCE SYMBOL

The team decides on a physical symbol formed by the group that indicates they have finished an assigned task and that they fulfilled the requirements of the task.

**TEAM FOOD**

The team selects a food (candy, fruit, gum, etc.) that the whole group enjoys and can be used as part of their celebrations.

**TEAM LOGO**

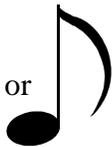
The team designs a logo that visually represents the team.

**TEAM NAME**

The group decides on an appropriate name for the team.

**TEAM SONG**

The team creates a song or selects a song that reflects the team's personality.

**QUESTION STRATEGIES**

In a standard classroom, the teacher asks questions from time-to-time and calls on one or more students to answer the question. When a student wants to ask a question, he or she will raise a hand and wait for teacher recognition before speaking.

Group dynamics make the standard question and answer format difficult to use. Following, are a series of strategies that you may employ in a cooperative learning situation to facilitate question response and discussion in a group setting.

**HEADS TOGETHER**

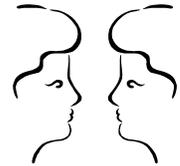
Pairs of students get together to answer a question, solve a problem, review an assignment, react to a video, generate a discussion, etc.

**NUMBERED HEADS TOGETHER**

The team members count off (e.g. one, two, three, four), discuss a problem together, reach some conclusion, then randomly team members answer a question when the teacher calls their number.

**PARTNER INTERVIEWS (PI)**

Partners take turns interviewing each other to determine their level of understanding of a concept.

**ROUND-ROBIN**

Each team member takes a turn adding information or sharing an idea; each class member shares an insight or new learning; each team member contributes to the creation of a writing project; etc.

**ROUND-ROBIN BRAINSTORM**

Team members take turns adding to a group brainstorm.

**SQUARED-SHARED-PARTNER-INTERVIEWS**

Pairs join with another pair to form a square and share what they gathered from their previous interviews.

**THINK-PAIR-SHARE (TPS)**

Individually, students think about a question, pair with another student to discuss their thoughts, then share their thoughts with a larger group or with the class.

**TEAM BRAINSTORM**

Team members randomly and rapidly contribute many ideas.

## **GATHER, SHARE, & LEARN STRATEGIES**

Despite the good intention of teachers, events can occur that prohibit them from adhering to their lesson plan (special school assemblies, sickness, inclement weather, etc.). Following are several strategies that you may make use of when you are called upon to teach that will enable the groups to gather, share, and learn their lesson material in a relatively short period of time.



### *CAROUSEL*

Teams work together to respond to different problems by moving from station to station or send their problem around the groups so other groups can contribute to the solution by responding on the chart or paper they receive.

### *CONVERSATION CIRCLES*

Two circles are formed with one circle inside the other. One student from each circle faces another student. In these pairs, students discuss questions posed by the teacher. Circles rotate two to four times in opposite directions so students discuss questions with new partners.

### *JIGSAW*

Material, like a chapter in a book, different web sites, several articles, etc., is

segmented and each team member is assigned a segment to study and/or review. Team members return to share their segment with the rest of the group.

### *JIGSAW AND EXPERT GROUPS*

Each team member is assigned a segment of information. Each member studies the assigned section independently. Members then find others from different groups who studied the same material. Together they review what they learned and reinforce the learning, clarify any misunderstandings, and fill in gaps. They become experts. They return to their original group and share their expertise.

### *JIGSAW WITH EXPERT GROUPS*

Each team member is assigned a segment of information. Each member finds all the others from other groups that share the same assignment. Together, they study the same segment of information and become experts on that information. They return to their original group and share their expertise.

### *TEAM GRAPHIC ORGANIZER*

Together, a team prepares a single graphic organizer of information.

### *TEAM PRODUCT OR PROJECT*

Teams produce a product or engage in a project as a culminating activity.

### *TEAM PERFORMANCE*

Teams prepare a performance or presentation based on a synthesis of what they learned.

## **BENEFITS OF COOPERATIVE LEARNING**

There are real benefits for using a cooperative learning strategy in the classroom. One of the most important goals in education is to promote constructive relationships and positive attitudes among the student body.

The group dynamics of cooperative learning requires a large amount of social interaction. Students share ideas and feelings. Team members get to know one another and develop a better understanding of other individuals. The students learn to trust, depend upon, and respect one another as they strive to achieve a common goal. Teammates are appreciated for what they can do and are not simply rejected for what they cannot do.

Cooperative learning groups tend to be more creative than individual students or non-cooperative learning groups because the group dynamics encourage and require all team members to actively participate. Therefore, more ideas are generated, the quality of ideas is increased, and there is more originality in creative problem solving activities.

## **CONCLUSION**

Cooperative learning is based on the belief that all people are good at something, have the ability to help others, and can benefit from help from others. This cooperation among all students promotes an exciting and far-reaching way of including differently-abled students.

By creating a classroom that is cooperative and inclusive, student's acceptance and success in the general education environment will be greatly enhanced. All students and all teachers have much to gain by structuring the classroom and school environment so that it provides generous support for learning, connecting, and caring.

## LESSON 5: GRAPHIC ORGANIZERS

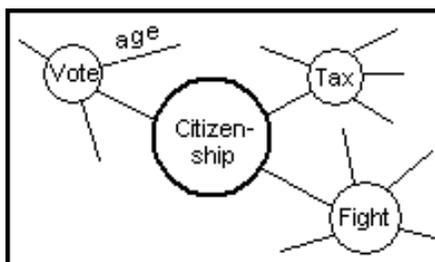


*Analogy/Simile Chart*  
*Bridging Snapshots*  
*Concept Web*  
*Double T-Chart*  
*Fishbone*  
*Graphic Organizer*  
*KDL*  
*KWL*  
*Looks-Sounds-Feels*  
*Matrix*  
*Mind Map*  
*Pie Chart*  
*PMI*  
*Ranking Ladder*  
*Right Angle*  
*Sequence*  
*Sunshine Wheel*  
*T-Chart*  
*Venn Diagram*

- Brainstorming/Associating
- Comparing/Prioritizing
- Analyzing/Comparing
- Sequencing/Visualizing
- Connecting/Reflecting

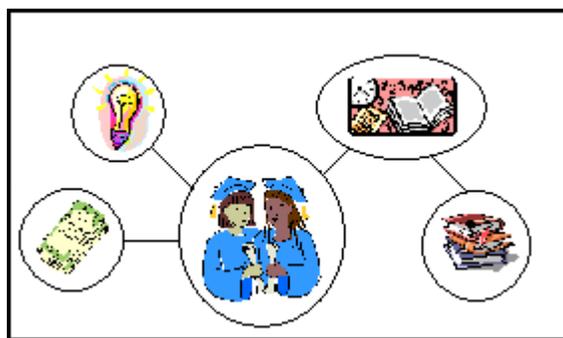
### BRAINSTORMING/ASSOCIATING

#### Concept Web



The center circle in a **Concept Web** represents a main concept or idea. The smaller circles connecting to the main concept represent the sub concepts; connected to these sub concepts are sub-sub concepts. For example, the center circle could be citizenship. The smaller connected circles are sub concepts related to citizenship. You can use these smaller circles to explore additional supporting concepts. An illustration might be the sub concept of voting as a critical part of citizenship.

#### Mind Map



## INTRODUCTION

**Graphic organizers** are excellent tools for learning the structure of thinking skills. A graphic organizer provides a powerful visual picture of information and allows the mind “to see” patterns and relationships.

There are numerous types of organizers and each type represents a different thinking skill. We use them everyday in our lives. The most common example is the calendar. Using a calendar helps us to gather, sift, sort, and share information.

Graphic organizers can be categorized by the different thinking skills they utilize:

The **Mind Map** is a form of brainstorming using a free-flowing documentation process where lines connect concepts to each other. The core subject is in the center; the main spokes are like sub parts of chapters. You can relate ideas by color codes, circles, or attached lines. You can also use pictures and words. You can use a Mind Map to organize thoughts, either of an individual or of a group, for preparing lesson plans, writing a book, planning a project, or giving a speech.

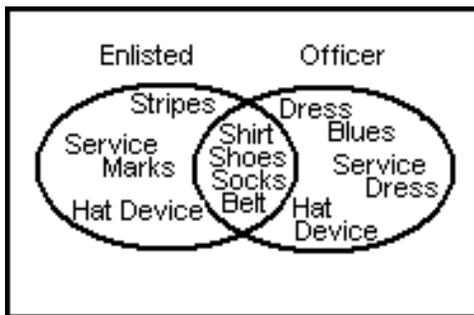
**Sunshine Wheel**



The center circle of the **Sunshine Wheel** represents the main idea and the lines extending out from the center circle represent the thoughts generated about the main idea. For example, the center circle could be leadership and the rays could be all the elements of leadership you can recall.

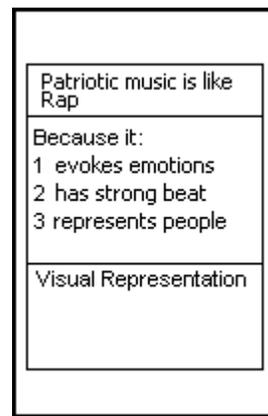
**COMPARING/PRIORITIZING**

**Venn Diagram**



The overlapping circles of a **Venn Diagram** are most useful for comparing and contrasting topics. The free parts of each circle contain the elements unique to each topic. The parts of the circle that overlap contain elements that are shared by each topic. For example, you could compare enlisted personnel with officers.

**Analogy/Simile Chart**



An **Analogy Chart** is used to illustrate the thinking and organizing process that involves comparing one thing to another thing that initially seems unrelated. The benefit of the process comes from having to explore the connections and the critical elements. For example, you could compare what patriotic music has in common with rap music.

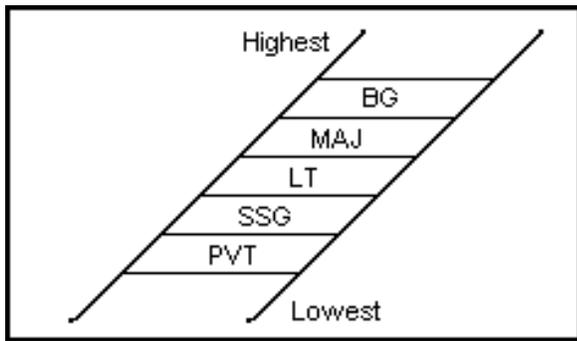
**T-Chart**

Poor Nutrition	
Problem	Solution
Eating junk food	Education

The possible headings for this two-column chart are limitless. Some suggested headings are "Before and After," "Pros and Cons," or "Cause and Effect." For example, you might use a **T-Chart** to brainstorm

solutions to problems associated with poor nutrition among teenagers. In the left column, identify the reasons why there exists poor nutrition among teenagers and in the right column brainstorm possible solutions.

**Ranking Ladder**



The rungs on the **Ranking Ladder** can represent priority or precedence, such as steps in a process, a hierarchy, position of components, relative importance of each data point, or status of individuals. For example, you might use a Ranking Ladder to prioritize ranks in the military.

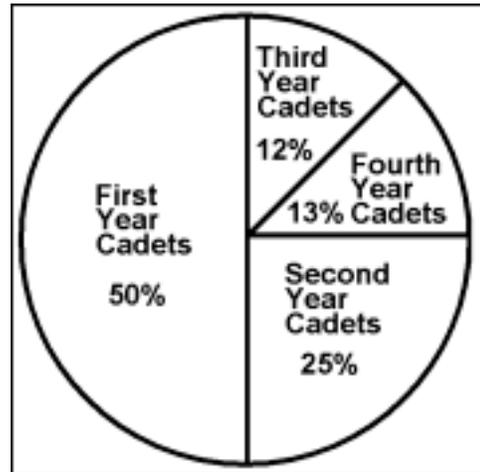
**ANALYZING/COMPARING**

**Looks-Sounds-Feels**



**Look-Sounds-Feels** allows you to compare appearances, auditory expressions, and tactile characteristics of an element. For example, “What does a musical instrument look like, sound like, and feel like when being played?”

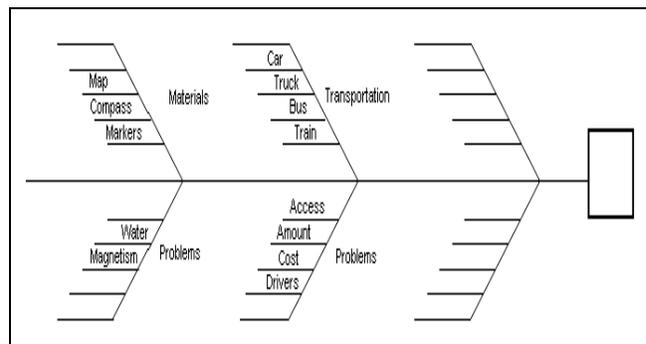
**Pie Chart**



Each segment of a circle in a **Pie Chart** represents a percentage or actual number of data points. For example, the pie could represent the total number of cadets in the JROTC program in a given high school. The relative size of each slice of the pie would represent the percentage of first, second, third, and fourth year cadets. Alternatively, each slice might represent the number of JROTC graduates that join a particular branch of the service.

**SEQUENCING/VISUALIZING**

**Fishbone**



The structure of a **Fishbone Chart** can help you think of important components of a problem to solve, an issue to explore, or a project to plan. The head of the fish represents

a problem, issue, or project. "Ribs" of the fish represent component parts of the problem and the related elements of each part. For example, you could explore how to prepare for an upcoming orienteering competition. Each rib represents the critical elements of preparation. Attached to each rib are the processes or activities that will assist in accomplishing each key element.

**Matrix**

Grades needed to earn next rank		S E P	O C T	N O V
Uniforms		80	90	90
Marching		75	85	90
Grades		80	85	90
Health		70	75	80
Respect		90	90	90

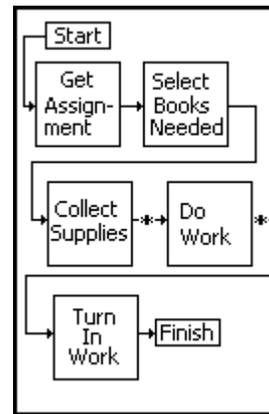
The **Matrix** tool is helpful to identify relationships and component pieces of an issue or data point. Intersecting horizontal and vertical lines create a grid used to classify and categorize related elements. For example, you could create a calendar matrix for accomplishing specific advancements. The vertical columns are labeled across the top by month. The horizontal columns are labeled down the left side by specific areas of advancement. The elements that must be met each month in order to achieve advancement are inside the grid.

**Double T-Chart**

Before	During	After
Sleep	Work	Play
Study	Test	Relax

The **Double T-Chart** is a three column chart that has three specific labels such as, "Before, During, After" or "Look, Sound, Feel" or "What, So What, Now What" or "High, Medium, Low" or any other concept that includes three distinct elements. For example, you could use a Double T Chart to plan a service-learning activity and label the three columns - Before, During, After.

**Sequence Chart (Also known as Bridging Snapshots)**



The connected boxes of a **Sequence Chart** show a progression, series, or succession of information. It does not focus on the priority or importance of information; rather it shows connections in the form of a timetable, cycle, or chain of events. For example, you could identify the activities necessary to complete a project.

**CONNECTING/REFLECTING**

**KWL**



This is another three-column chart. The specific labels for each column are "What do you *KNOW*?" "What do you *WANT* to know?" and "What have you *LEARNED*?" This is useful when you are faced with new or difficult information. For example, at the beginning of the unit on leadership, you might create a **KWL** chart for recording your responses to "What do you *KNOW* about leadership?" and "What do you *WANT* to know about leadership?" At the end of the unit, you can return to the chart and fill in the last column, "What have you *LEARNED* about leadership?"

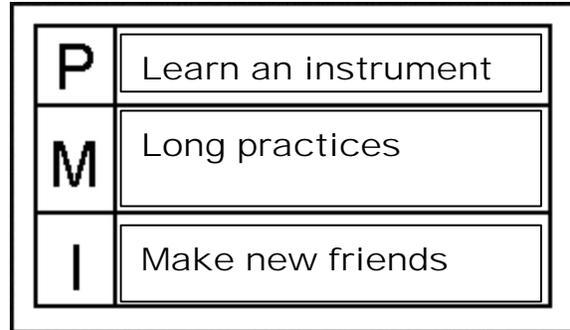
**KDL**



The specific labels for each column in the three-column **KDL** chart are, "What do you *KNOW*?" "What do you *DO*?" and "What have you *LEARNED*?" You can use this graphic organizer to connect knowledge and behavior. For example, you *KNOW* to stand erect and still at "attention." You *DO* actually slouch at "attention" in formation. At the end of the unit, you *LEARN* to feel muscle tension

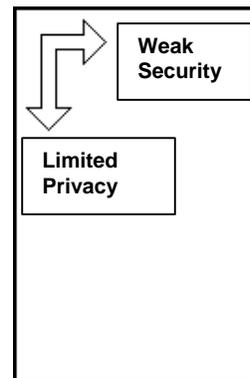
in specific areas to know when you are standing erect at "attention."

**PMI**



You can use a **PMI** chart to evaluate the pluses and the minuses of a concept or idea and the interesting features of the concept. For example, "What is positive about joining the school band?" "What is negative about joining the school band?" and, "What are some interesting points about joining the school band?"

**Right Angle Chart**



You can use the **Right Angle Chart** to identify facts along the horizontal line and associate thoughts and feelings about the facts below the vertical line. This is most useful to help you to connect feelings to facts and reflect on how you might alter feelings based on the facts. For example, you can list facts about Internet security, and show some of the

concerns the American people have about Internet security.

## **CONCLUSION**

Overall, graphic organizers allow you to visually organize concepts, ideas, data, thoughts, and feelings. Choosing the appropriate graphic organizer depends on the type of elements that need organizing and analyzing. Once the organization process is complete, understanding complex concepts, decision making, and problem solving becomes easier.

## LESSON 6: USING FEEDBACK IN THE CLASSROOM



*acceptability*  
*clarify*  
*comprehensive*  
*constructive*  
*conviction*  
*criteria*  
*feedback*  
*flexibility*  
*jargon*  
*modify*  
*objectivity*  
*preconceived*  
*rapport*  
*reinforce*

### INTRODUCTION

We are all familiar with courses that consist of readings, lectures, assigned writings, and tests. In traditional courses like these, individualized comments from instructors to their students are often limited to grades on papers, quizzes, exams, and the final grade. However, comments of this sort come well after instructors have evaluated learners on their course work. If there is any impact on learning, it will come during the next phase, in another course, or in some follow-up activity.

Such after-the-fact comments often contribute little to learning because they come too late for learners to take corrective action. On the other hand, the most important task you have as an instructor may be to provide information that learners can use to improve themselves during the course. Such information guides learners while they still can take corrective action.

This lesson examines how you can give **objective**, **acceptable**, **constructive**, **flexible**, and **comprehensive** feedback. The information in this lesson may seem overwhelming to you at first, but so are the responsibilities of a teacher. The techniques in this lesson will help you to know how to give effective feedback. Then, the more you use those techniques, the more familiar and easier they will become, and the more your communication skills and overall performance will improve.

### DEFINITIONS AND APPLICATIONS

In general, feedback is any information about the results of a process. When we use a computer, for instance, we feed in the information and get back feedback. In the social sciences, feedback is the information that returns to the source of the process so as to **reinforce** or **modify** it. For example, if a coach finds that the football team is weak in defense tactics, the coach schedules the team for more tackling practice. In psychological **jargon**, feedback is called the “knowledge of results.”

In the classroom, feedback can be defined as information that learners receive from their instructor about their performance, information that may cause them to take self-corrective action and guide them in attaining the goals of the course more effectively.

Learners can receive feedback from at least five sources: themselves, the learning task, fellow cadets/students, the instructor, and from the school/cadet battalion.

Feedback is generally given for *informational and/or motivational* purposes. Informational feedback corrects errors that the learner commits. Motivational feedback motivates the learner to try harder. Informational feedback should always be motivating, but

motivational feedback does not always provide information. A pat on the back or a word of encouragement may motivate a learner, but will not necessarily point out any errors in the learner's performance.



It is important to realize that feedback need not always be negative or destructive. In fact, positive feedback is almost always seen as warmer and more sincere than negative feedback given in identical ways.

## GIVING FEEDBACK TO LEARNERS

The purpose of giving feedback in the classroom is to improve learner performance. In its most effective form, it provides constructive advice, direction, and guidance to learners in their effort to raise their performance levels. Learners must understand the purpose and role of feedback in the learning process. Otherwise, they may reject it and make little or no effort to improve.

Feedback can also be used as a device to reinforce learning. Although all feedback cannot be used in this manner, the instructor should take every opportunity to use feedback as a means of **clarifying**, emphasizing, or reinforcing instruction.

## CHARACTERISTICS (OR CONDITIONS) OF EFFECTIVE FEEDBACK

Effective feedback stresses both learner strengths as well as suggestions for improvement. Therefore, the most significant characteristics, or conditions, of effective feedback are objectivity, acceptability, constructiveness, flexibility, and comprehensiveness. Each of these characteristics is briefly explained below.

### *OBJECTIVITY*

Effective feedback focuses on the learner and the learner's performance; it should not reflect the instructor's personal opinions, likes, and biases. For example, if the learner makes a speech and expresses views that conflict with your beliefs, you should give feedback on the merits of the speech, not on the basis of the agreement or disagreement with the learner's views. To be objective, feedback must be honest; it must be based on factual performance — not performance as it could have been or as you and the learner wish it had been.

### *ACCEPTABILITY*

Learners usually accept feedback when you give it with **conviction** and sincerity. Usually, you have the opportunity to establish **rapport** and mutual respect with learners before the need for giving feedback arises. If there is no such opportunity, your manner, attitude, and knowledge of the subject must serve instead.

### *CONSTRUCTIVENESS*

You must be straightforward and honest; you must also respect the learner's personal feelings. Feedback, then, is pointless unless a learner profits from it. However,

praise just for the sake of praise has no value unless the only goal is to motivate or improve self-concept.

Effective feedback reflects your consideration of the learner's need for self-esteem, recognition, confidence, and the approval of others. Ridicule, anger, or fun at the expense of the learner, have no place in constructive feedback.

### *FLEXIBILITY*

You should always remain flexible in giving feedback by avoiding mechanical, predetermined techniques and **preconceived** opinions regarding content, subject matter, and learner capability. Instead, you should consider:

- The actual content of a learner's effort.
- What actually happens during an activity?
- The observed factors that affect performance.

### *COMPREHENSIVENESS*

Comprehensive feedback need not be extremely long nor must it treat every detail of a learner's performance. As an instructor, you must decide whether you can achieve the best results by discussing a few major points or a number of minor points. You should base your feedback either on what areas need improvement or on what areas you can reasonably expect a learner to improve.

Feedback includes both strengths and weaknesses. Only you can determine a proper balance between the two. It is a disservice to learners to dwell on the excellence of their performance and neglect areas that need improving (or vice versa).



## **GROUND RULES AND TIPS FOR GIVING FEEDBACK**

### *GROUND RULES*

- Establish and maintain rapport with learners.
- Cover the major strengths and weaknesses. Try to be specific; give examples if possible.
- Avoid trying to discuss everything. A few well — made points may be more beneficial than numerous, but inadequately developed points.
- Try to avoid comments with “never” or “always”; most rules have exceptions. Your feedback may be incorrect or inappropriate for certain situations.
- Do not criticize something that cannot be corrected.
- Do not criticize when you cannot suggest an improvement.
- Avoid being maneuvered into the unpleasant position of defending feedback. If the feedback is honest, objective, constructive, and supported, no defense should be necessary.
- If part of the feedback is written, it should be consistent with the oral feedback.

*TIPS*

- Reinforce correct performance by letting learners know what they are doing well. Your encouragement and support will mean a great deal to your learners.
- Make sure to base your feedback on the evaluation **criteria**.
  - ⇒ When you see someone doing something differently than you would ordinarily do it, consider whether it matters. Ask yourself questions such as:
    1. Will it work the way he/she, they are doing it?
    2. Is this a better way?
    3. Will it cause problems for them later?
    4. Is it safe?
  - ⇒ Allow for individual variations. Consider the learner's openness to suggestions before recommending changes that are not based on the criteria.
- Identify incorrect performance as early as possible. Give feedback as soon as you see the incorrect performance.
- Try to provide feedback in the most constructive way possible. Help learners understand how to do a task correctly — do not just tell them what they are doing wrong.

- Be aware of the learners' sensitivity to correction, especially in front of other people (generally avoided whenever possible). Keep your voice down when providing individual feedback. Avoid the temptation to point out one person's mistake to the whole group as an example.
- Give feedback less often as learners progress.

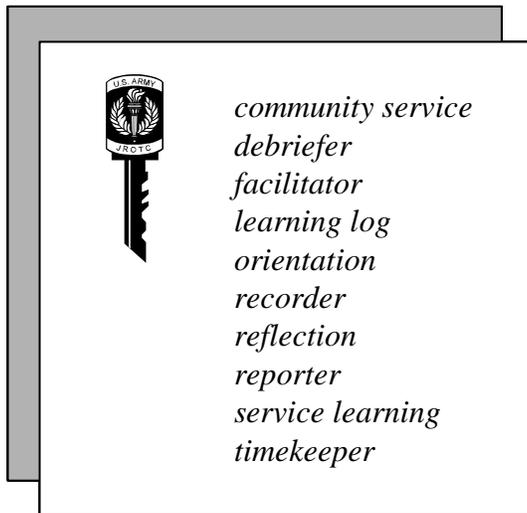
**CONCLUSION**

As a potential instructor, coach, and counselor in JROTC, you must be able to give effective, positive **feedback**. By improving the way that you give feedback, you are improving the future performances of your teammates and classmates.



## MAKING A DIFFERENCE WITH SERVICE LEARNING

### LESSON 1: ORIENTATION TO SERVICE LEARNING



and people in need everywhere. You do not have to look very far to find hunger, illiteracy, pollution, illness, poverty, neglect, and loneliness. Decide on an urgent need or one that you find most compelling. What matters most is that you make a commitment to address the need in a positive way.

Once you have chosen a need, select a project that will help you accomplish your goal of making a difference. President John F. Kennedy reminded everyone to, “Ask not what your country can do for you; ask what you can do for your country.” Planning and carrying out the service learning project will help you selflessly “do” for your neighbor, your community, your state, your country, and the world.

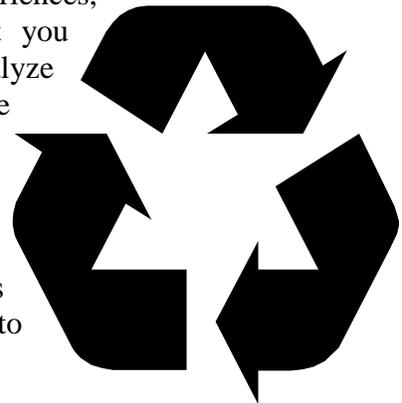
### INTRODUCTION

You have probably noticed that people who seem to find the most satisfaction in life are those actively engaged in doing something to make the world a better place for everyone. They seem happy because they are making a difference. Have you ever helped a friend through a difficult time or done something kind like stopping to help change a flat tire or take food to a sick neighbor? Then you know why people who help others appear to be more genuinely content with their lives.

Unfortunately, although you know you will feel good, it is probably not easy for you to get started. You are not alone. Many people find it awkward to reach out. However, once you take those initial steps and begin making a difference, the difficulties disappear. Feelings of accomplishment and generosity of spirit make the effort and time you spent worthwhile.

So how do you get started in service? First, look around you. There are problems

The author, Aldous Huxley, said, “Experience is not what happens to you; it's what you do with what happens to you.” Service learning takes that belief to heart. It is not enough to take positive actions, you must learn from your actions. For example, starting a paper recycling program is a worthy project; it can become more meaningful when you learn more about why it is important, reflect on your experiences, identify what you learned, analyze how you've changed, and decide other ways you can recycle and help others commit to recycling.



**Service learning** experiences can become the starting point for self-awareness, self-improvement, and self-fulfillment. In the process of making a difference for others, you make a difference in yourself.

## WHAT IS SERVICE LEARNING?

Service learning is an active and experiential learning strategy where students have a direct impact on an identified need that interests and motivates them. It requires sequential lessons that are organized so orientation and training come before the meaningful service activity and structured reflection follows the activity.

Orientation and Training  
+ Meaningful Service  
+ Structured Reflection

---

## ***SERVICE LEARNING***

### *STRUCTURED TEAMWORK*

Service learning requires active participation in structured teamwork. Working within small teams and solving problems together will help you become active participants. Each member is assigned a team role, including:

- **Facilitator** (The facilitator leads team discussions to identify needs and prepare service learning activities.)
- **Recorder** (The recorder takes notes for the team and organizes information.)
- **Reporter** (The reporter represents the team voice and reports team findings.)

- **Timekeeper** (The timekeeper keeps track of time and plans the schedule.)
- **Debrief** (The debriefer encourages team members and leads discussion after presentation.)

Cadet teams should determine, plan, and execute service-learning activities with the aid of their instructor.

### *ORIENTATION AND TRAINING*

**Orientation** and training activities are necessary to prepare you and other participants for the service experience. Integrating what you are learning in class with the service activity is a key goal of service learning. This step requires in-class lessons, followed by selecting a service project that relates to the curriculum and meets academic standards.

You should be familiar enough with the material to conduct the service project you have selected. Part of the planning process will require you to determine what you need to know before the activity and to train yourself accordingly.

If possible, speak with representatives or others involved with the service you have selected to see what to expect. Orient yourself with the service goals, those you will be helping, other organizations or people that you may need to contact, etc. In other words, learn what you need to know before starting the service experience and plan for all potential circumstances.

### *MEANINGFUL SERVICE*

It is your responsibility to initiate and plan service activities to correspond to the lesson material. Although there should be at least 15 cadets per service experience, you can either work in committees on one project

or small teams on separate projects. For example, you may wish to divide the project components among three teams of five cadets each. Learning should be an active and social experience that is meaningful to you and those involved. Within your teams, choose a service activity that:

- Addresses a real and important need another group is not addressing.
- Is interesting and challenging.
- Connects you to others within the community or world.
- Challenges you to develop new skills.
- Requires little or no money.
- Is achievable within the time available.
- Has a positive effect on others.

### *STRUCTURED REFLECTION*

**Reflection**, or taking time to observe, analyze and integrate actions with learning, is an important part of the learning process. A strong reflection helps you develop skills and extend learning from the service experience. You may use many types of reflection: **learning logs** and essays; team and class discussions; performances; graphic organizers; and, public presentations. Using learning logs throughout the experience to record thoughts, feelings, knowledge and processes, will help you organize what you have learned.

Within your teams, share what you have learned by discussing your answers to open-ended questions before, during, and after each service experience. Reflection questions should encourage observation, analysis and integration. In Chapter 6, Lesson 3, “Project Reflection and Integration,” you will learn more about appropriate reflection questions to employ throughout the service learning experience.

### *COMMUNITY SERVICE VERSUS SERVICE LEARNING*

Community service in many states is dispensed by a judge or court system as mandatory work for infractions of the law. Some students and members of the community, view this type of service as punishment. What students learn is that they don’t ever want to be forced to do “service” again. Today, many high schools include community service hours as a graduation requirement and though intentions are good, sometimes the emphasis is on quantity of hours, not quality of the project.

Service learning, on the other hand, is a step up from community service; it brings academics to life and is driven by student involvement. You should identify essential needs in your school or community, and then decide on your own projects. In addition, you should plan and carry out your own projects and take responsibility for your own learning. Reflecting on the experience will reveal the importance of your service work and the impact you are making on yourself and others.

### **WHY USE SERVICE LEARNING?**

Service learning is rapidly growing in popularity around the country. Students who are able to learn about the world around them and work to improve it as part of their education reap many benefits. Such students:

- Learn more.
- Earn better grades.
- Come to school more often.
- Demonstrate better behavior.
- Become more civic minded.

- Gain a first-hand appreciation and understanding of people from other cultures, races, and generations.
- See the connections between school and “real life”.
- Feel better about themselves.
- Learn skills they can use after leaving school.

Service learning provides a safe environment where you can learn, make mistakes, have successes, and develop by actively participating in organized service experiences within your community. For example, such experiences might include:

- Meeting actual community needs by providing meaningful service.
- Coordinating in partnership with the school and community.
- Integrating these service opportunities into an academic curriculum, thereby enhancing what your school teaches, extending your learning beyond the classroom, and offering unique learning experiences.
- Providing you with opportunities to use previously and newly acquired academic skills and knowledge in real-life situations in your own community.
- Providing structured time for you to think, talk, and write about what you did and saw during your actual service activity.
- Helping you to develop a sense of caring for others.

Providing service can be a powerful tool in the development of attitudes and behavior. It can transform young adults from passive recipients into active providers, and in so doing, redefine the perception of their

involvement in the community from a cause of problems to a source of solutions.

Important skills you will need in order to work successfully to accomplish each service learning activity, are similar to those identified in the Secretary's Commission on Achieving Necessary Skills (SCANS) report. There are several important skills and qualities identified in the SCANS to ensure students are prepared for the workforce. Here are just a few those skills service learning can help you strengthen:

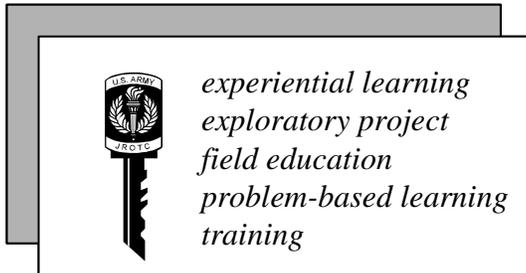
- Being an effective team member
- Providing resource and time management
- Engaging in frequent and effective communication
- Making decisions
- Organizing and being responsible
- Effectively managing personal problems such as poor writing skills, lack of research skills, or stereotyping

## CONCLUSION

When combined with formal education, service becomes a method of learning or “service learning.” Learning is maximized by combining the three main service learning components: orientation and training, meaningful service, and structured reflection.

Service learning is the single learning strategy that can accomplish the most good for the greatest number of people. Studies suggest that service learning reinforces curriculum content and standards, and benefits participants academically, as well as personally and socially. By getting involved to help meet different needs, you have the potential to make a difference to someone, the community, or the world.

## LESSON 2: PLAN AND TRAIN FOR YOUR EXPLORATORY PROJECT



### INTRODUCTION

There are several things to consider before undergoing service learning. Planning ahead will prepare you both mentally and physically to undertake the challenge. Before you select a service learning project in class, your instructor should familiarize you with service learning by guiding you in an **exploratory project** within the community. This will help you select a service project and demonstrate the steps to conducting a proper service learning experience.

### EXPLORATORY PROJECT PURPOSE

The exploratory project is an introduction to a service learning activity that utilizes **experiential learning** and **problem-based learning** principles. The purpose of a teacher-planned exploratory project is to provide students with a meaningful experience, expose them to how it feels to serve, and to stimulate their thinking about possible service learning activities.

One of the primary benefits of engaging in an exploratory project is to understand what service learning entails. Service learning is not community service, although many confuse the two. Until you participate in service learning, you will not have a real-life experience to justify the difference.

Exploratory projects help you capture a vision of how to make a difference in the world. Once you get involved, you may begin to see the world through different glasses. In addition, as you work to address one need in the community, several other unmet needs will begin to surface. Your vision of the world may change when you begin to see critical needs where you never saw them before.

Suggested introductory projects could include going to a hospital or nursing home to visit residents, distributing food at a food bank, or volunteering at a local Red Cross program.

### SERVICE LEARNING STEPS

Before participating in service, familiarize yourself with the following steps to conduct a proper service learning experience:

1. Complete a pre-assessment of skill level using the Personal Skills Map from the JROTC Success Profiler.
2. Determine a school, community, or national need you can fill relating to class curriculum.
3. Brainstorm and select a meaningful service project that meets proposed guidelines.
4. Start learning log to record new knowledge, thoughts and feelings throughout all phases.
5. Plan and organize details of the service activity and discuss expectations.
6. Participate in a meaningful service activity that meets the service learning guidelines (Form 219-R).



7. Discuss and reflect on what you experienced (observation).
8. Discuss and reflect on what you gained from the experience (analysis).
9. Discuss and reflect on what you can do with the new information (integration).
10. Complete a project summary report and a final group evaluation form to judge teamwork, etc.
11. Brief the experience to community members, administration, classmates, etc.
12. Complete a post-assessment using the personal skills map and related analysis to determine plan of action.

### CHOOSING A SERVICE ACTIVITY

After participating in an exploratory project, you should be able to select your own service activity that meets an important need and integrates the curriculum.

It is very important that you participate in selecting a service activity that is meaningful to you and others. Brainstorm service ideas relative to the lesson curriculum and program at hand. Then as a class or team, select the service activity.

Service learning opportunities can use **field education** principles to incorporate scholastic programs with the curriculum. You can integrate programs such as:

- Lions-Quest Skills for Action<sup>®</sup>
- Groundhog Job Shadow Day<sup>®</sup>
- NEFE High School Financial Planning Program<sup>®</sup>
- You the People<sup>®</sup>
- Chief Justice<sup>®</sup>
- Cadet Ride<sup>®</sup>

In field education, you perform the service as a part of a **training** program designed primarily to enhance understanding of a field of study while providing substantial emphasis on the service.

Besides integrating curriculum and service, you will learn more about the different types, models, and terms of service in the next lesson, *Project Reflection and Integration*.

### PLANNING THE SERVICE

After you have chosen an activity, you must plan the essential facets for project completion and prepare or train yourself for what is to come.

This is where service learning begins. Service learning efforts should start with clearly stated goals, then with the development of a plan of action that encourages cadet responsibility. You may achieve those goals through structured preparation and brainstorming such as discussion, writing, reading, observation, and the service itself. Keep the goals consistent with the level of the activity planned and ensure that the goals and plan of action draw upon the skills and knowledge of your team. When corresponding goals to the curriculum, try to determine academic content standards you will address through the service.

Besides determining goals and standards, plans should be comprehensive to ensure adequate preparation for each step or task. Determine a description of the task(s) and answer the questions:

- Who will be involved?
- What is involved and needs to be done?
- When will each step take place?

- Where will it all take place?
- Why will we do it?
- How will it work?



For instance, you might decide to visit a local veteran’s hospital. You could discover the needs of the elderly patients that reside there by discussions with the hospital’s administrative personnel or possibly by meeting with the residents themselves. You should also determine where the project fits into the curriculum. Together, you might decide that the patients need to have younger people help them write letters to family members (Unit 3), assist with their wellness and fitness (Unit 4), or plan and lead activities (Unit 2).

Here is another example of an actual service-learning project in Gastonia, North Carolina. During lessons on Planning and Social Responsibility, cadets decided to plant a garden at a nursing home. Their pre-planning resulted in a specially designed, waist high “no stoop garden.”

If you are aware of children who have a hard time learning to read, you could plan a service activity to a local elementary school. Since teachers rarely have extra time on their hands to spend one-on-one with those children, certain schools may welcome JROTC cadets who could come and spend time reading or listening to the children read. You

do not have to limit this service to reading. Consider helping in mathematics or other subjects. Remember to maximize the use of your participating cadets’ skills and knowledge. Contact your local Junior Achievement office at <http://www.ja.org>, for more service learning suggestions to help teach elementary students.

Do not forget to accomplish the administrative details during the preparation phase. Teams often overlook these requirements or assume that someone else will do them. You must obtain permission from school administrators to conduct the service learning activity as a field trip and arrange for transportation, lunch, and parental release/permission slips for participating cadets, and the necessary supplies and equipment to perform the activity. Invite administrators, counselors, community members, etc. to be on your Advisory Board so that they will become more involved with your project.



## TRAINING FOR THE SERVICE

Before participating in the service activity, prepare yourself for different circumstances and/or outcomes. This may involve learning about the subject matter you will be expected to know to complete the tasks you have laid out, or discussing different outcomes and expectations within your teams. Try your best to be prepared for different situations you may encounter. Within teams, or as a class, brainstorm and discuss potential

hazards you may encounter, and precautions you should take to make the task run smoothly.

Pretend you are taking a bus to a children's hospital with a group of cadets to tutor sick children who cannot be in school. You may need to train yourselves on particular academic subjects/content, research what grade levels will be represented, and locate the hospital. Also, make sure to pair up and plan a meeting time/place.



## EXECUTING THE SERVICE

In this phase, there are a few rules to remember. First, arrive on time and always be courteous. You are representing your school and you should act accordingly at all times. Second, ensure that you understand the task or goal at hand. If you are not sure, ask an authority. They should be able to point you in the right direction. If you are a team leader, make sure your team members feel completely comfortable with the tasks. Third, if a situation or problem arises that needs an authority's attention (for example, an accident occurs and someone is hurt), take what actions you can and have someone contact the person in charge.

Being well organized and completely prepared, are fundamental for a successful execution phase. For instance, if you are going to build a garden (as discussed in the examples of the nursing home and the school landscaping project):

- Ensure you have the correct tools and supplies to complete the service.
- Know the name or names of the contacts for the particular service you are performing.
- Identify alternate group leaders in case there are absences.
- Assign cadets to work on projects according to their experience and abilities.
- Be thoroughly prepared to complete the task, but be flexible to make changes. Things may not go as you plan them.

Remember, you are there to render a service for your community.

## CONCLUSION

The exploratory project will introduce you to service learning through active participation. From there, you will be ready to choose your own service activity. At that time, remember that good planning is key to a successful service learning venture. Training may be necessary to complete the task, and learning should be the focus as well as making a difference through service.

You should now be prepared to use the proposed steps and planning procedures to conduct a proper service learning experience.

## LESSON 3: PROJECT REFLECTION AND INTEGRATION



*advocacy service*  
*after action review*  
*analysis*  
*direct service*  
*indirect service*  
*integration*  
*observation*  
*placement*  
*project*  
*reflection*

### INTRODUCTION

Now that you have an idea of what service learning is all about, what comes next? After the exploratory project, you will be able to determine and conduct appropriate service learning activities. Before choosing activities, you should know about the models, terms and types of service available and how to integrate service with what you are learning in class.

After you have completed a service activity, you should follow it up with a structured reflection, demonstration of learning, and evaluation of the service learning.

### SHORT-TERM VERSUS LONG-TERM SERVICE

Meet others' needs through either short-term or long-term service activities.

*Short-term* service projects include:

- Restoring a historical monument during history lessons.

- Raising money at an event for charity during financial planning lessons.
- Visiting a nursing home while discussing wellness and fitness issues.

*Long-term* service projects include:

- Adopting a local waterway while studying environmental issues.
- Setting up an advocacy campaign to raise financial resources for shelters during financial planning lessons.
- Organizing an after-school tutoring program during lessons on teaching skills.

### MODELS OF SERVICE

Service can be done anywhere to reinforce what you are learning in class; you do not even have to leave the school grounds. The two models of service include **projects** and **placements**.

#### *PROJECT MODEL*

Service learning projects are initiated and planned by cadets with instructor guidance. Tutoring elementary children in subjects you are currently studying or starting a recycling program based on information from your geography lessons are examples of service projects.

#### *PLACEMENT MODEL*

Service learning placements are activities carried out beyond the classroom in a pre-existing, structured situation. The placement organization typically assigns responsibilities to students individually. Examples include: teaching lessons for Junior Achievement, or volunteering for *Special Olympics* during fitness lessons.

### THREE TYPES OF SERVICE

The three types of service are direct, indirect, and advocacy.

#### *DIRECT SERVICE*

**Direct service** involves face-to-face contact with those being served in either project or placement models of service learning. Examples of direct service include working in a soup kitchen or working with disadvantaged children while you are studying about group communication.

#### *INDIRECT SERVICE*

**Indirect service** requires hands-on involvement in a service activity without any face-to-face contact with those served. An example would be raising money for a veteran's hospital or e-mailing deployed soldiers during your military lessons unit.

#### *ADVOCACY SERVICE*

**Advocacy services** do not require face-to-face contact with those served. Advocacy involves speaking out on behalf of an issue or cause. For instance, starting a school-wide poster campaign to teach others about an issue would be an advocacy service.

### INTEGRATING SERVICE LEARNING

Because the learning should equal the service in service learning, it is important to integrate classroom content with the chosen service. Service learning should reinforce curriculum content and standards, in order to benefit you academically, personally and socially. Applying content standard material to real-life experiences, will give you a better understanding of the curriculum.

When conducting a service learning project, take time to pinpoint the standards you should address and ways to assess your learning. As a team or class, consider:

- What standards are we addressing?
- What should we know or be able to do?
- What assessments can illustrate our learning?

Not only will you fulfill an important need with your service project, you will be learning the national standards in a more relevant and engaging manner.

### SERVICE LEARNING EXAMPLES

Field education integrates curriculum programs with service learning. This section presents examples of how you can integrate service learning with curriculum related programs, including:

- Lions-Quest Skills For Action<sup>®</sup>
- You the People<sup>®</sup>/Chief Justice<sup>®</sup>
- Groundhog Job Shadow Day<sup>®</sup>
- Cadet Ride<sup>®</sup>
- Winning Colors<sup>®</sup>
- NEFE High School Financial Planning Program<sup>®</sup>



### ***Lions-Quest Skills for Action***

Lions-Quest Skills for Action (SFA) is a student-centered program based on combining learning with service. The program is divided into four parts and a Skills Bank. The program curriculum is an elective that advocates service, character, citizenship, and responsibility.

The Skills for Action curriculum helps guide you through the crucial steps of conducting service learning activities. Those steps include (1) identifying needs, (2) choosing and planning a project to address the need, (3) carrying out the project, and (4) reflecting on experiences and exploring what was learned throughout the project.

### ***You the People and Chief Justice***

There are a variety of ways to incorporate service learning with you the People (YTP) and Chief Justice. After you are grounded in YTP citizenship skills and have formed groups, you can identify a service learning activity to integrate into the skill-building curriculum.

For example, you could create, circulate, and publicize a petition that addresses a community issue and create a videotape to document the issue for community officials.

### ***Groundhog Job Shadow Day***

Groundhog Job Shadow Day (GJSD) is a nationwide effort to introduce students to the skills and education needed to make it in today's job market by letting them explore various career options. You can make use GJSD during Chapter 7 lessons on careers.

For instance, you may decide to start a Job Shadow effort to link the schools to the community. Then organize a career day or

GJSD in order to make it possible for high school students in the community to explore different career opportunities.

For details about the program, go to: <http://www.jobshadow.org>.

### ***Cadet Ride***

The Cadet Ride is an extension of American History that allows you to choose different historical characters to research, reenact them on site or in the classroom, and complete a related service learning activity.

First, identify issues that still relate to the community today, such as homeless veterans or victims of terrorist attacks. Take time to discuss how you can use what you have learned to improve the community/world issue. Finally, complete a related service learning activity, taking time to reflect on each phase of the experience.

Project examples used with Cadet Ride include: supporting war memorials or assisting in veterans' hospitals or shelters. Specifically, you could decide to educate others on the service of Lieutenant General Maude, who died in the line of duty at the Pentagon on 11 September 2001. In addition, you could plan a memorial for him and/or other victims to commemorate the acts of war that occurred at the World Trade Center, the Pentagon, and in Pennsylvania.

### ***Winning Colors***

Winning Colors states that everyone is capable of developing decision-making, thinking, feeling, and action behaviors. One example of a service learning project, would be to teach senior citizens or elementary students about Winning Colors, how to discover their personal needs, and develop a

plan to help them achieve a successful balance.

For more information about Winning Colors go to <http://www.winningcolors.com>.

### ***NEFE High School Financial Planning Program<sup>®</sup>***

The National Endowment for Financial Education (NEFE) High School Financial Planning Program<sup>®</sup> (HSFPP) is designed to teach practical money management skills and to introduce financial planning through course work. Numerous service learning activities can be integrated into the NEFE HSFPP curriculum.

Suggested service learning activities related to the NEFE HSFPP, include:

- Teach elementary students Junior Achievement material in relation to HSFPP.
- Provide a budget assistance program.
- Host a Credit Awareness or Financial Fitness Fair.
- Develop budgets and spreadsheets for local services.
- Start an Investment Club in school.
- Design, produce, and distribute informative posters.
- Comparison-shop for homebound seniors' groceries.

For more information, call NEFE at (303) 224-3510, or visit <http://www.nefe.org>.

### ***Integration with Additional Unit Content***

Besides using applicable curriculum programs in service learning, you may decide to integrate additional content and services.

The key is to connect the service activity with course curriculum.

For example, after studying harmful effects of tobacco/drugs, you could teach elementary school kids by putting together an anti-drug advocacy program. You could create banners, skits and instructional materials, then plan and coordinate the elementary program teachings.

### **AFTER THE SERVICE**

After the service, you will participate in an **after action review**, in order to reflect, demonstrate, and evaluate.

### ***STRUCTURED REFLECTION PHASE***

Remember, a strong **reflection** helps develop skills and extend your learning from the service experience. Besides keeping a running learning log of entries, you should hold team discussions to answer open-ended questions before, during, and after each service experience. Sharing what you learned with your teammates and listening to others, will add to your learning experience.

Types of reflection questions to ask about the service learning experience include:

- 1) **Observation/What** — What did I do?
- 2) **Analysis/So What** — What did it mean to me?
- 3) **Integration/Now What** — What will I do because of what I accomplished or learned?

This phase provides you with a structured opportunity to think about what you just did for your community and to describe the feelings that stimulated your actions throughout this activity. Experience indicates that reflection is the key to successful service learning programs.

After you actually perform the service, you should come together as a group to contemplate your service experiences in a project summary report, learning logs, essays, and class discussions. In doing so, you should thoroughly describe what happened during the activity; record any differences your activity actually made; and try to place this experience in a larger context. Specifically, do you believe you successfully accomplished your service learning goals? If not, why? What can you do better the next time? Share your feelings and thoughts. Discuss experiences that made you happy, sad, or angry, events that surprised or frightened you, and other topics related to the activity.

### *DEMONSTRATION PHASE*

In this phase, you share with others your mastery of skills, creative ideas, and the outcomes from this project, and then identify the next steps to take to benefit the community. The actual demonstration can take many different forms. For example, you might:

- Give a presentation to peers, faculty, or community members about the activity.
- Write articles or letters to local newspapers regarding issues of public concern.
- Extend the experience to develop future projects that could benefit the community.

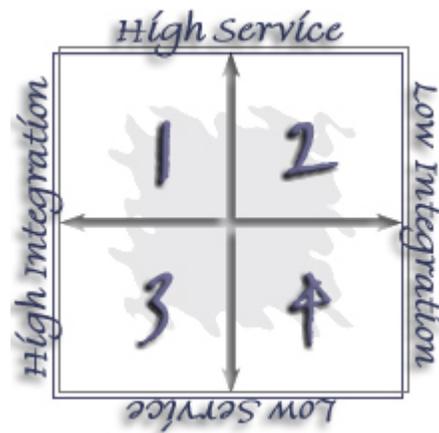
### *EVALUATION PHASE*

#### *Evaluating Service Learning*

A goal in JROTC, is to couple high service with high integration of course content in order to maximize learning and skill development, as well as meet identified needs. When evaluating your service learning

activities, reflect upon accomplishments and determine ways to improve.

High service meets a clear and important need and is organized and implemented by students. High integration with curriculum addresses classroom goals, incorporates classroom content, and improves course-related knowledge and skills. Use the quadrants below to rate your service learning experience.



#### *Quadrant 1*

Example: After studying financial planning lessons from the National Endowment of Financial Education, cadets teach Junior Achievement lessons to elementary students and assist them in making posters to advocate financial responsibility.

#### *Quadrant 2*

Example: Cadets organize drive for stuffed animals and blankets after learning about work skills and participating in Groundhog Job Shadow Day.

#### *Quadrant 3*

Example: Teacher directs cadets to send e-mail to deployed service members after studying a historic event through a cadet ride.

### *Quadrant 4*

Example: Teacher assigns cadets to perform a color guard in the community after studying lessons in *You the People*.

### ***Service Learning Authentic Assessments***

Authentic assessments that evaluate the service activity and student learning are imperative to a successful service learning initiative. Choose assessment tools that measure and affirm learning, program goals, and impact on the need identified, to determine potential improvements.

Service learning lends itself to performance-based assessment, enabling you to exhibit what you have learned in a hands-on and meaningful context.

## **CONCLUSION**

In addition to teaching you the value of volunteering, service learning fosters your development of citizenship skills, as well as personal, social and thinking skills. It teaches service responsibilities and prepares future service commitments. Most importantly, service learning builds a spirit of cooperation among you, your peers, the school, and the community.

## CAREER PLANNING

### LESSON 1: CAREER EXPLORATION STRATEGY



#### INTRODUCTION

As a high school student, you are faced with many decisions. Probably the most important decision that you will soon be making will be about your future. Although some students in your class may know exactly what they want to do after graduating from high school, others may not. If you are one of those who have not yet decided, don't panic! This is the time in your life to try different things, to discover your interests, and to understand how your interests relate to career decision-making.

When determining your interests and personal preferences about a **career**, you may want to consider things such as how much education you want to pursue and whether it is important for you to find a career that has high prestige, allows you to work independently, is especially creative, or relates to other common work values.

#### PLANNING A CAREER STRATEGY

Developing a satisfying career requires careful planning and informed decision-making. This is an exciting time for you, but it can also be overwhelming. You must spend time gathering information, understanding what alternatives you have, and thinking about your personal preferences in regard to your career. The career decisions that you make in the next few months or years will not be the only career decisions that you will make — most people have many careers over the course of a lifetime, but the decisions you make soon will be key ones. Therefore, in order to use your career exploration strategy as a tool to help you make those important career decisions; it should focus on three tasks:

- Discovering what your aptitude, interests, abilities, and personal preferences are.
- Matching your aptitude, interests, abilities, and preferences with **occupations**.
- Learning where and how to get information on different careers.

If you have not yet decided what type of a career you would like, now is the time to start a planning a strategy that will help you to decide. In addition to teaching you career exploration skills, developing a career exploration strategy can motivate you to learn more about yourself and the occupations that you might find rewarding. Such a strategy can help you to see how your aptitude, interests, abilities, and personal preferences match career opportunities.

An effective career exploration strategy can also help you to decide whether you want to attend college, a **vocational**-technical school, join one of the military services, or go directly into the world of work after high school.

## JOB VS. CAREER

<b>What is a Job?</b>	A piece of work, task or duty done by agreement to pay.
<b>Example:</b> Babysitting, Mowing Lawns	
<b>What is a Career?</b>	A principal business, <b>profession</b> , occupation or lifework.
<b>Example:</b> Teacher, Engineer, Writer	

### WHAT AM I GOING TO DO AFTER COMPLETING HIGH SCHOOL?

This is a question that you may be asking yourself. Since you have been in school most of your life, you might be wondering, “What will I do after graduation? Should I go to college or look for a **job**? Do I have any other alternatives? What about technical or vocational training? Is college something I can handle now, or should I wait until later? Do I have the resources to obtain further education? If I do try to find a job, what kind should it be? Should I join the military? How do I find out which occupations are best for me? Where will I likely succeed and be most satisfied?”

To answer those questions, you should find out as much as possible about the many career opportunities that exist, and which ones match your aptitude, interests, abilities, and personal preferences. To do all of that, you will need the following:

- Information about your aptitude, interests, abilities, and personal preferences.
- Information about the world of work, including educational requirements, work environment, and career opportunities for specific occupations.
- Information on how to match your personal characteristics to the characteristics of the world of work.

First, you must decide how you will conduct your career exploration, how many hours you plan to take in your search process, and a date when you will make a tentative decision. The time limitations you set are important. It is easy to postpone big decisions. If you commit yourself to a plan, you are less likely to become overwhelmed by such a big decision.

The deadline that you set is there to help you make timely decisions about your future. It does not mean you must make a career decision that is not changeable. You may even find it helpful to set a time in the near future to review your research. That review will give you the opportunity to see if you are still satisfied with your choices. When looking for a career, it is important to be creative. Explore all possible avenues. Use techniques such as brainstorming, researching, networking, canvassing, testing, counseling, and volunteering to assist you in making your career decisions.

### **Brainstorming**

First, spend 10 minutes listing careers that you know you are not interested in. Next, spend another 10 minutes listing all the careers that you think may interest you. Finally, evaluate both lists. Commit yourself to exploring the possibilities you like the most. Set a date to review the list to see if you still feel the same way about the choices you

have made. Remember that you can always change your mind at any time during the career exploration process and add or delete choices from your lists as you learn more about those choices.

### ***Researching***

Two good resources, which should be available in your school career center or library, are the Occupational Outlook Handbook and the Dictionary of Occupational Titles.

- The Occupational Outlook Handbook is a career information resource produced by the U.S. Department of Labor that provides detailed information on about 250 civilian and military occupations.
- The Dictionary of Occupational Titles (DOT) defines civilian careers and assigns them a DOT code. As a result of an extensive task analysis performed by the authors of that book, you can link comparable occupations. This capability is particularly important when linking civilian to military occupations, and vice versa, to determine occupational **counterparts**.

Other resources that you may wish to consider for obtaining information about career fields are: Dunn and Bradstreet's Million-Dollar Directory, Thomas Registry of Corporate Profiles, and Standard and Poor's Corporation Registry. These books should also be available in your school career center or library.

Your research should also include the following:

- Visit a local Job Services office. This office has more **job postings** in more occupations than any other single source.

- Use the yellow pages in the telephone book. The yellow pages group companies together according to what they do or make. Try to match your interests or abilities with a company most likely to meet them.
- Read the newspaper ads. These ads list job categories alphabetically. Remember, the type of work you can do may be listed under several different categories.
- Listen to the radio or television and read the business section of the newspaper to find out what new businesses may be opening.
- Visit local Chambers of Commerce, professional societies, or community organizations, attend trade shows, or go to industrial or craft unions.
- Contact city, county, state, and federal personnel offices.

### ***Networking***

**Networking** means meeting people and making contacts. It is one of the most successful ways that people learn about job or career openings. Ask your friends, relatives, or neighbors about possible careers. People who are working often hear about job openings before businesses make them public, and those people may be able to give you “the tip of a lifetime.”

### ***Canvassing***

Talk with professionals and the people who visit your school during career day. Attend the career days sponsored at most technical or vocational schools, junior or community colleges, and the major colleges and universities that are in your area. Use these events to learn about the requirements for entering into various occupations.

Additionally, make appointments with managers or other key people in the fields in which you are most interested. Generally, people will gladly take a few minutes of their time to discuss their career field with you.

### **Testing**

There are a variety of tests that can help you determine your aptitude, interests, and abilities. In this lesson, we define aptitude as the capabilities that you have developed so far that indicate your readiness to become proficient in a certain type of activity. This may refer to your *capability to learn a particular type of work* or your *potential for general training* — both are measurements that are essential for success in determining a career.

You may have already taken a career test. Career tests match possible careers to your interests and they also give you an idea about the type of job for which you are best suited. You can obtain additional information about career tests from your instructors, the media center, or any of the school counselors.

### **Counseling**

Guidance and/or career counselors and occupational specialists are available in most schools and communities to help you make decisions about your career. If you think you will have trouble making up your mind about a career, speak to a counselor for assistance. Counselors and occupational specialists can match your aptitude, interests, and abilities with potential jobs or career fields. Remember, it is important to start your career plan early and these counselors and occupational specialists will be able to help you.

### **Volunteering/Working a Summer Job**

Once you make a decision about your career, consider volunteering in a job that relates to your career decision or working a summer job in that field. For example, if you want to be a teacher, find a job at a camp or

day care center. If you want to be a doctor, volunteer at a hospital. Volunteering and working part-time can help you decide if the career choice you made is right for you.

While making money may seem important, an **internship** or volunteer work in an area that interests you can be more beneficial in the long run. Besides, a job in itself is a good learning experience.

#### *How Will a Summer Job Help My Future?*

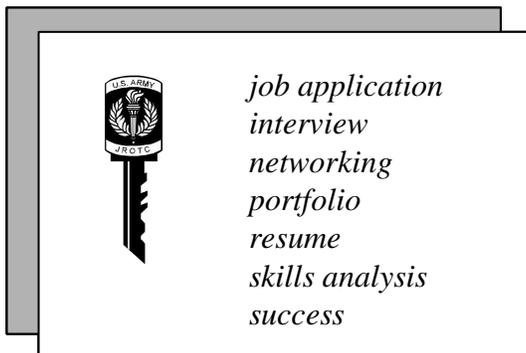
A summer job can:

- Give you work experience.
- Boost your self-esteem and make you more responsible.
- Give you references for future jobs/careers.
- Give you the chance to meet a role model or **mentor** who can help you plan your future.
- Help you grow and learn your true interests and talents.

### **CONCLUSION**

This lesson explained the importance of career exploration skills and career planning. Specifically, it introduced a career exploration strategy, discussed how to link information about yourself to specific occupations, and showed you how to use that strategy in making career decisions. You should be able to organize information about yourself and the world of work and be able to see which occupations best fit your aptitude, interests, abilities, and preferences.

## LESSON 2: CAREER DEVELOPMENT PORTFOLIO



### INTRODUCTION

What do you want to become? What are you suited to do? What do you need to do to prepare? These questions and many more like them are what you must try to answer in order to prepare for your future. The better you prepare the better your chances of achieving **success**, and doing something that you enjoy. This lesson will focus on the career development **portfolio**, its importance, and its development and maintenance.

### WHAT IS A CAREER PORTFOLIO

A portfolio is a file that contains an organized collection of your work based on your personality, goals, and aspirations. It provides insight and information on you and your achievements and growth over time. It presents an in-depth picture of a your skills and competencies. It also provides you a means to reflect on important areas of your life development and the impact of education on future lifestyle and career choices. It contains information that promotes what you want others, specifically future employers and schools, to know about you.

### WHY CREATE A CAREER PORTFOLIO

There are many good reasons to create and maintain a career development portfolio. A portfolio is tailored to meet your needs and requirements. It serves as your record of achievement. It will:

- Serve as an on-going record of your completed work. Your portfolio will contain copies of good work from all of your classes, including information on projects in which you are involved that will be ongoing from year to year. It will provide you with a historical record that you can apply to other projects.
- Allow you to evaluate and see your improvement and growth, including how much you have done over the course of a nine-week period, semester or quarter, this year, or all the years of your high school experience.
- Serve as evidence of your accomplishments, even if you transfer from one school to another.
- Update your parents on your progress.
- Furnish you with a record of areas in your growth and development that may require additional work.
- Help you with the application process for future jobs and/or enrollment in colleges or universities.
- Prepare information for school and job **interviews**.

### YOUR PERSONAL CAREER PORTFOLIO

The following information will show you how to create a career development portfolio that suits your own personality, goals, and aspirations. As you begin to use it, you

will be able to see how important pieces of your life fit together so that you can feel confident and optimistic about your future. During its development and use, we encourage you to talk with your parents, instructors, counselor, and other supportive people in your life. They can best advise you on the type of information that you should save in your portfolio information that promotes what you want others to know about you.

**CREATING YOUR CAREER PORTFOLIO**

By now, you may be able to pause and reflect on certain things you have learned, your likes and dislikes about them, your personality, your dreams for yourself, the things you wonder about, the things that frustrate you, and especially the things that you like most about yourself. Therefore, when creating your career development portfolio, apply these thoughts and reflections to the areas of:

- Self-knowledge/self-analysis.
- Your life roles.
- Past, present, and future educational development.
- Career exploration and planning.

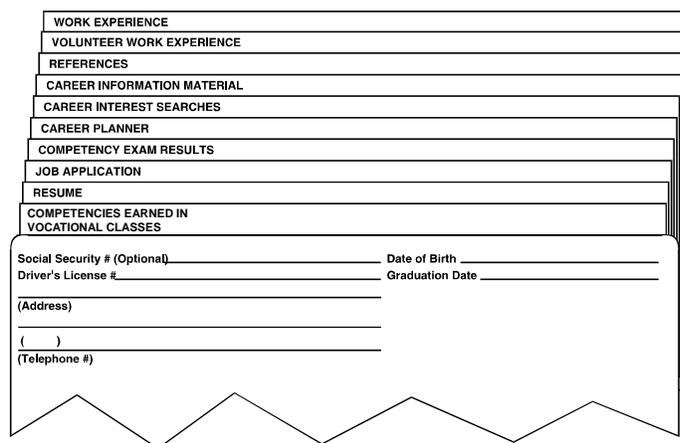
If your school or JROTC unit has not chosen a specific portfolio, you can easily create your own using an ordinary file folder.

Place the information that is shown in the illustration below on the outside cover.

The headings on the files inside the sample folder below are just a few documents that you may want to place *now* in your portfolio. Then, as you progress through high school, there will be other documents that you should include in your portfolio, documents pertaining to job skills, work experiences, standardized exam results, **job applications**, **resumes**, college applications, financial aid forms, and self and **skills analyses**.

Although portfolios will vary based on the needs of the individual and the audience, there are some basic requirements to all portfolios. They are as follows:

- A personal cover page
- A table of contents
- A personal statement
- A resume
- Letters of reference — as many as possible
- Transcripts (optional)
- Samples of your school work from different subject areas to include why they are significant
- References and contact information



Your career development portfolio is still missing one essential element: an address book! The names, addresses, and phone numbers found in an address book represent the contacts that a person makes and develops over many years of **networking**. Fellow JROTC cadets, other classmates, teammates, your parents' friends, your friends' parents, people met at camp, church, or acquaintances made while traveling are contacts that may become an important part of your future. They may be future clients, customers, colleagues, or employers.

### **EVALUATING YOUR CAREER PORTFOLIO**

A portfolio is not complete unless you evaluate it thoroughly. Remember that the portfolio represents you. So, here are some questions you should ask yourself to ensure that you have developed a quality product.

- Are the required documents included?
- Have you edited it to make sure that there are no errors?
- Is the portfolio neat and organized?
- Is the portfolio labeled properly?
- Is it pleasing to the eye?
- Does it represent you as a person?

### **MAINTAINING YOUR CAREER PORTFOLIO**

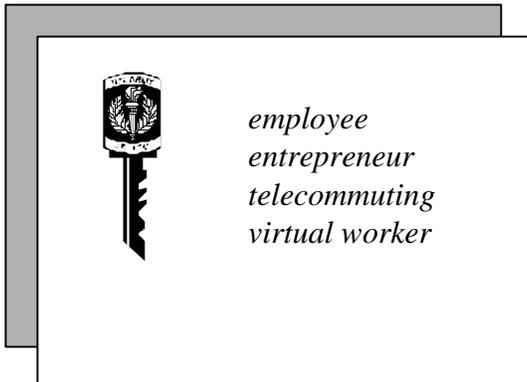
You should review the information in your portfolio at least three times per year and remove anything that is outdated. Your objective is to keep your career development portfolio as responsive to your future needs and interests as possible. This portfolio should be the best record of your school and work accomplishments.

### **CONCLUSION**

If you have not already started on a career development portfolio before this school year, start now! Create a portfolio that is responsive to your future needs and interests. To be complete, it should contain documentation on your goals; educational development; career exploration; and planning; and self-analysis.

Start today by planning what you want to accomplish along with the how and when you can complete it. Use a portfolio to organize your school accomplishments and career planning and to help you achieve success.

## LESSON 3: CIVILIAN CAREER OPPORTUNITIES



### INTRODUCTION

Selecting a career may be one of the most important decisions that you make. Since much of your adult life will be spent working, it is important to start as early as possible in selecting a career. This lesson shows you how to identify career choices that are right for you, determine your aptitude for them, and differentiate between a career and a job.

### IDENTIFYING WHAT YOU WANT TO BECOME

Do you know at this time in your life what career or job you would like to pursue after graduating from high school? Your answer can be anything: doctor, plumber, hot dog salesman, **entrepreneur**, instructional designer, baseball star, electrician, and so on. The Department of Labor lists over 2,000 different jobs performed in the United States in its publication “The Dictionary of Occupational Titles.”

When thinking about your future, you should first consider all the jobs that interest you the most and why. Try to understand what draws you to those professions. Then,

identify the qualities and traits that you have for those jobs as compared to the requirements for them.

Maybe you do not have any idea what you would like to do. If that is the case, you might be eliminating some career choices because of negative thinking, such as:

- You assume certain jobs are not realistic.
- You do not have the resources to pursue certain jobs or careers.
- You may not have direct experience.
- You feel that you cannot even guess at jobs or careers that may interest you.

It is never too early to start planning for your future. Take the time to do so now.



### DETERMINING WHAT YOU ARE BEST SUITED TO BECOME

Although you may believe that discovering your aptitudes for certain jobs or careers may seem like a difficult task, it can actually be easier than identifying the career that interest you. Your guidance counselor (career counselor, occupational specialist) has career tests that can match your skills, abilities, and interests with specific job titles. The results of these tests allow you to eliminate jobs that may not be suited for you (because you scored low on them) so that you can concentrate your time and research on those

jobs that better match your skills, abilities, and interests.

The **Armed Services Vocational Aptitude Battery (ASVAB)** test is a good indicator of how well you have developed your academic and occupational abilities. It measures aptitudes that are related to success in different types of civilian or military jobs.

There are several Websites that are dedicated to helping you assess your potential in the job market. Some offer a free assessment and some offer the assessment for a fee. The following Websites are just a few samples:

- [www.assessment.com](http://www.assessment.com)  
Provides a free online career assessment test and appraisal through MAPP, also known as Motivational Appraisal of Personal Potential.
- [www.personalnature.com](http://www.personalnature.com)  
PersonalNature Career assessment service measures talents and work styles to provide a ranking of career suggestions for a fee.

## CAREER VERSUS A JOB

Though they are often used interchangeably, the words “career” and “job” have different meanings. Jobs can be both the individual pieces of a career or random, isolated events in a person’s work history. Careers are formed over time; they consist of related jobs that build upon one another. One job does not make a career; several jobs do.

Working behind the counter at a fast food restaurant until you can do something else is a job. If, however, your goal is to become a manager and invest in franchises someday, it is the first step in a career. The knowledge and skills gained from working behind the counter are a foundation on which

you can continue to build as you move up in the fast food industry.

## IDENTIFYING CAREERS FOR THE FUTURE

Not sure what kind of career to pursue? You might want to consider the computer or health fields. The number of jobs in these areas is projected to grow very quickly within the next few years. According to the U.S. Bureau of Labor Statistics, the 10 occupations with the fastest projected employment growth for 1996 through 2006 are the following:

1. Database administrators, computer support specialists and all other computer scientists (118% more jobs by 2006)
2. Computer engineers (109%)
3. Systems analysts (103%)
4. Personal and home care aides (85%)
5. Physical and corrective therapy assistants and aides (79%)
6. Home health aides (76%)
7. Medical assistants (74%)
8. Desktop publishing specialists (74%)
9. Physical therapists (71%)
10. Occupational therapy assistants and aides (69%)

As you can see by the above list, the top three careers with projected growth are related to the IT, Information Technology field. One of the reasons for the interest in the IT field which involves working with computers, is that it provides the opportunity to work at home by the use of an electronic linkup with a central office, called **telecommuting**. There are thousands of organizations throughout the country that offer the benefit of telecommuting to their employees. Improved work performance and **employee morale**, reduced operating costs for items such as office space, and a more efficient work environment, all contribute to the

benefits of telecommuting. Employees who telecommute are sometimes called **virtual workers** because they are performing work tasks virtually, via the Internet, phone, and fax machine.



## CONCLUSION

Many people never work at jobs or careers that use their full talents and abilities or that interest them. You do not have to work at a boring job. You can do something that interests you and still make good money.

By answering the two questions that career seekers must answer, you are on your way to a satisfying and personally meaningful career:

1. What do you want to do?
2. What are you suited to do?

## LESSON 4: MILITARY CAREER OPPORTUNITIES



*active duty  
commissary  
counterparts  
enlistment  
exchange  
recruiter  
Reserves*

### INTRODUCTION

The military is one of the largest employers of high school graduates in full time positions. The U.S. armed forces hires over 365,000 enlisted and officer personnel each year. This lesson introduces you to the three career path opportunities that are available to you in the U.S. armed forces. (For more information on military enlistment and education programs, go to <http://www.militarycareers.com>)

### TYPES OF MILITARY CAREER PATHS

The military offers three career paths for its members: the noncommissioned officer path, the warrant officer path, and the commissioned officer path.

#### *NONCOMMISSIONED OFFICERS*

Noncommissioned officers (NCOs) are enlisted personnel who have advanced above the first three entry-level positions and hold supervisory positions over other lower ranking

enlisted members. Within the Army, NCOs are known as “the backbone of the Army” because they actually supervise the details involved in accomplishing the unit’s mission.

Noncommissioned officers’ ranks start at pay grade E-4. They are better known as corporals in the Army and Marine Corps, petty officers third class in the Navy and Coast Guard, and sergeants in the Air Force. However, there are E-4s who are not noncommissioned officers; they are specialists in the Army and senior airmen in the Air Force. Specialists and senior airmen are technicians in their field and, as such, do not supervise lower grade personnel.

#### *WARRANT OFFICERS*

A warrant officer ranks between an enlisted person and a second lieutenant in the Army, Air Force, and Marine Corps or between an enlisted person and an ensign in the Navy and Coast Guard. As technical specialists, each branch of service primarily assigns them to duties in their area of expertise.

#### *COMMISSIONED OFFICERS*

Commissioned officers are the professional leaders of the military. The President of the United States appoints them and the Senate confirms them to hold positions of authority in the armed forces. Officers range from second lieutenant in the Army, Air Force, and Marine Corps (or ensign in the Navy and Coast Guard) to General of the Army or Air Force and Fleet Admiral of the Navy or Coast Guard. An officer’s role is similar to that of a manager or executive in the civilian world. Officers are typically responsible for setting and meeting objectives by managing lower grade officers and enlisted personnel.

## MILITARY CAREER GROUPS

### *NONCOMMISSIONED OFFICERS*

Noncommissioned officers specialize in 1 of 12 military career groups. These 12 groups are:

- Human Services Occupations
- Media and Public Affairs Occupations
- Health Care Occupations
- Engineering, Science and Technical Occupations
- Administrative Occupations
- Service Occupations
- Vehicle and Machinery Mechanic Occupations
- Electronic and Electrical Equipment Repair Occupations
- Construction Occupations
- Machine Operator and Precision Work Occupations
- Transportation and Material Handling Occupations
- Combat Specialty Occupations

Of these 12 categories, all have civilian **counterparts**, except Combat Specialty Occupations. A specialty is a particular branch of a profession or field of study to which its members devote or restrict themselves. The military offers over 2,000 job specialties within these 12 broad areas from which enlisted personnel can choose.

### *WARRANT OFFICERS*

Warrant officers also specialize in a single area of expertise. This area is generally in one of the above 12 military career groups.

### *COMMISSIONED OFFICERS*

Officers have two areas of concentration or specialties. The primary area of concentration is further divided into fields such as combat arms, combat support, and combat service support. The secondary or functional area of concentration is a career field unrelated to the primary area of concentration. Each branch of the service normally assigns a secondary specialty to their officers after they have become qualified in their primary specialty.

## MILITARY CAREER PATHS — PREREQUISITES

### *NONCOMMISSIONED OFFICERS*

You become a noncommissioned officer by advancing through the enlisted ranks. Competition among your peers is the basis for promotions within the NCO corps. Ability, job performance, skill, experience, and potential are the major considerations for advancement. However, at each grade level, there are certain minimum requirements for promotion such as time in service, time in grade (present level of work), and successful completion of skill level examinations. Also, in some cases, there are military educational requirements, which an NCO must meet.

### *WARRANT OFFICERS*

In some branches of the service, personnel must first work their way up through the enlisted ranks; then, after meeting the required prerequisites, they may apply to become a warrant officer. However, some of the services also require you to be a certain rank before you are eligible to apply and they prefer their warrant officers and warrant officer applicants to have an Associate's Degree or the equivalent. In the Army, one way you can become a warrant officer is by enlisting for the Warrant

Officer Candidate School in its Aviation Program.

### ***COMMISSIONED OFFICERS***

There are four main pathways to become a commissioned officer:

- Completion of ROTC
- Graduation from a service academy
- Completion of Officer Candidate School (OCS) or Officer Training School (OTS)
- Direct appointment.

### ***Reserve Officers' Training Corps (ROTC)***

The Reserve Officers' Training Corps is a course that you can take while in college. The Army refers to its course as the Senior ROTC program (or SROTC). SROTC is a two- to four-year program that has extensive military training both on-campus and at summer camps.

Many colleges and universities across the country offer one or more ROTC programs for the Army, Navy/Marine Corps (the Marines do not have their own program), and Air Force. In some cases, you may be eligible for a military scholarship (where the military pays most of the educational costs plus a monthly stipend of \$150 for up to 10 months per year) or financial aid while participating in ROTC. Then, after graduating from college and successfully completing the ROTC training, you become a commissioned officer. This commission will incur an eight-year service obligation. Participants must be younger than 27 years of age for the Army — 25 for the other services — when commissioned.

### ***Service Academies***

There are four service academies for which you can apply and receive a commission in the U.S. armed forces. Applicants for the

*U.S. Military Academy* at West Point, NY (for Army applicants), the *Naval Academy* at Annapolis, MD (for Navy and Marine applicants), and the *Air Force Academy* at Colorado Springs, CO, must be nominated, usually by a member of Congress, to be considered. Nominations for the *Coast Guard Academy* at New London, CT, are made competitively on a nationwide basis — that is, congressional nominations are not required.

Each academy is a four-year program in which you can graduate as a military officer with a Bachelor of Science degree. At these academies, the government pays your tuition and expenses. In return, you are obligated to serve six years on active duty and two years in an inactive reserve status. Applicants must be at least 17 years of age but not older than 22; a U.S. citizen; of good moral character; able to meet the academic, physical, and medical requirements; not be married or pregnant; and not have any legal obligations to support family members. Acceptance to an academy is highly competitive. Each year, they receive between 10,000 and 12,000 applications. Of those who qualify, only about 1,200 receive appointments.

### ***Officer Candidate/Officer Training Schools***

If you are a college graduate with a four-year degree and do not have any prior military experience, you may join the service of your choice with a guaranteed option to attend Officer Candidate School (OCS) or Officer Training School (OTS). Course lengths vary by service, but they are normally less than six months. Then, after successfully completing the training, you are eligible to become an officer.

If you earn a degree while serving on active duty, you may apply for OCS or OTS. You must first meet all of the prerequisites and your unit commander must approve your request. Additionally, each state National Guard has its own Officer Candidate School

that takes applicants directly from its own units. Then, if they successfully complete the training, they are commissioned and are usually sent back to the unit from which they came to serve as officers.

### ***Direct Appointment***

A person in a professional field, such as medicine or law, may receive a direct appointment and become a commissioned officer even without prior military training. The grade that a professional receives upon entering into the military depends upon two factors: years of schooling and prior experience in that profession. For example, a professional could start out at the grade of captain. The appointment of professionals accounts for the majority of the direct appointments made by the services.

Within the U.S. Army, over 70 percent of its new officers come from ROTC each year. Within the other branches of the armed forces, about 15 percent of the military's new officers come from the service academies, 25 percent from officer candidate/training schools, 45 percent from ROTC, and 15 percent from direct appointment.

## **ENLISTED COMMISSIONS**

Selected enlisted personnel from each service may qualify for appointment to one of the four service academies or may be eligible to attend an ROTC program. Other enlisted commissioning programs include:

- The Army's Green to Gold program
- The Navy's BOOST (Broadened Opportunity for Officer Selection and Training) program
- The Army Medical Department's Enlisted Commissioning Program
- The Navy Enlisted Commissioning Program
- The Marine Corps Enlisted Commissioning Education Program
- The Airman Education and Commissioning Program
- The Coast Guard's Pre-commissioning Program for Enlisted Personnel.

In the last five programs of the above list, qualified enlisted personnel may collect full pay and allowances while attending college full time. Those who graduate and finish an officer candidate program receive their commissions.

An enlisted person may also receive a direct appointment as an officer if that person demonstrates performance far above the standards called for in his or her occupational field and does not have a disciplinary record. (**Note:** Appointments of this nature are extremely rare.)

Remember to join the military as an officer, you must have a Bachelor's Degree. Certain scientific and technical fields, such as medicine or law, require advanced degrees.

If you are interested in any of the options discussed in this lesson, your JROTC instructors, the school guidance or career counselors, and/or service recruiters will be able to give you the information you need.

## ***BENEFITS OF MILITARY SERVICE***

The military can offer an exciting and rewarding career. It is important to research the career options that are available to you. When you enter the military, you must sign a contract that commits you to serving a specific amount of time. In return, the military offers you a variety of benefits. The following chart summarizes most of those benefits.

### SUMMARY OF EMPLOYMENT BENEFITS FOR ENLISTED MEMBERS

<i>Vacation</i>	Leave time of thirty days per year
<i>Medical, Dental, and Eye Care</i>	Full health, medical, hospitalization, dental, and eye care services for enlistees and most health care costs for family members; in remote sites, this care is available from civilian sources (dental care, especially for family members, is with civilian care under a dental plan)
<i>Continuing Education</i>	Voluntary educational programs for undergraduate and graduate degrees, or for single courses, including tuition assistance for programs at colleges and universities
<i>Recreational Programs</i>	<p>Programs include athletics, entertainment, and hobbies:</p> <p>Softball, basketball, football, swimming, tennis, golf, weight training, and other sports</p> <p>Parties, dances, and entertainment</p> <p>Club facilities, snack bars, game rooms, movie theaters, and lounges</p> <p>Active hobby and craft clubs, and book and music libraries</p>
<i>Exchange &amp; Commissary Privileges</i>	Food, goods, and services at military stores are available, generally at lower costs and tax free, although the commissary does charge a small surcharge
<i>Legal Assistance</i>	Many free legal services for help with personal matters

### SELECTIVE SERVICE

It is the legal obligation of young men to register with Selective Service when they turn 18 years of age. Failure to register can result in jail time, a fine, and other serious consequences. Not knowing about Selective Service registration is not a justifiable excuse under the law.

#### WHO MUST REGISTER

The *Military Selective Service Act* states that male U.S. citizens, and male aliens residing in the U.S., who are between the ages of 18 and 26, must register in a manner prescribed by proclamation of the President.

The proclamation under which registration is presently required was signed on July 2, 1980. It provides that young men must register with Selective Service within 30 days of their 18th birthday.

A man is exempt from registering while he is on full-time active duty in the U.S. Armed Forces. Cadets and midshipmen at service academies are included in the exemption. Members of the National Guard and Reserves not on full-time active duty must register unless they have reached age 26 or are already registered.

Lawfully admitted non-immigrant aliens (for example, those on visitor or

student visas and members of diplomatic or trade missions and their families) are not required to register. Parolees and refugees who are aliens residing in this country must register.

Those who are unable to register on schedule due to circumstances beyond their control — for example, those that are hospitalized, institutionalized or incarcerated — do not have to register until they are released. After release, they have 30 days in which to register. Handicapped men who live at home must register if they are reasonably able to leave the home and go into a public place. A friend or relative may help a handicapped man to fill out the form if he is unable to do so by himself.

The fact that a man is required to register does not mean that he is certain to be drafted. If Congress should authorize a draft, a registrant within the group subject to induction would have his eligibility for service determined based on his individual situation at that time.

#### *FREQUENTLY ASKED QUESTIONS (FAQs) ABOUT SELECTIVE SERVICE REGISTRATION*

**Q. *What is Selective Service?***

A. The Selective Service System is a government agency. Its job is to provide men for service in the Armed Forces if there is a national emergency.

**Q. *What is Selective Service registration?***

A. When you register, you add your name to a list of all men in the nation, ages 18 to 25. The Selective Service would use this list to identify men for possible military service in a national emergency.

**Q. *Do females have to register?***

A. No, by law they do not.

**Q. *What happens if there's a draft?***

A. There has not been a draft since 1973, but if there was an emergency, and Congress ordered another draft, Selective Service would conduct a birth date lottery to decide the order in which to call men. The Selective Service would first call men who turn 20 in the calendar year in a sequence determined by the lottery. If the military needed more, the Selective Service might then call those men who are 21 to 25, youngest first.

**Q. *Do I have to register?***

A. Yes, it is the law. If you do not register and the government prosecutes you, it could send you to jail for up to five years and/or fine you up to \$250,000. Not registering hurts you in other ways, too. You would not qualify for federal student grants or loans, job training benefits, or most federal employment.

**Q. *Is registration hard?***

A. No, it is simple. Just go to any post office and ask for a Selective Service registration card. Fill in your name, address, telephone number, date of birth, and Social Security number. Then, give the card to the postal clerk. The clerk will ask to see some identification so bring your driver's license or some other piece of identification. It takes only about five minutes.

**Q. *Do I have to register at a post office?***

A. Maybe not. You may receive a registration card in the mail, or you can obtain a card from your local

recreation or social service center. If so, just fill it out and mail it to Selective Service. Check with your JROTC instructors; they may be able to register you over the Internet. Finally, check with your school's guidance office; you may be able to register there.

**Q. When should I register?**

A. Register within 30 days of your 18th birthday. If you are applying for federal student aid or job training, you can register up to 120 days before you turn 18 to avoid delays. If you cannot register on time because you are in a hospital or prison, you do not have to register until you are released. Then, you have 30 days in which to register.

**Q. What if it's more than 30 days after I've turned 18 and I haven't registered?**

A. Register at a post office immediately. Selective Service will accept a late registration, but the longer you wait, the longer you are breaking the law.

**Q. Do all men have to register?**

A. To make the system fair, the law requires all 18-year-old men to register. The only young men exempt from registration are foreigners who are in the U.S. temporarily as tourists, diplomats, or students; personnel on active duty in the Armed Forces; and students at U.S. service academies. Immigrant non-citizen males, 18 to 25 must register.

**Q. How do I prove I registered?**

A. After you register, Selective Service will mail you a card. Keep it as proof that you have registered. You may need it if you apply for federal employment, federal student aid, or

job training. If you do not get your card within 90 days of registering, write to: Registration Information Office, P.O. Box 94638, and Palatine, IL 60094-4638. Or, call 1-847-688-6888.

**Q. What if I change my address?**

A. Notify Selective Service of your new address on a Change of Information form. You can get one at any post office. Or, you can use the Change of Address form that comes with your acknowledgment card.

## CONCLUSION

Serving in the armed forces allows you to contribute to your own advancement and to your country at the same time. The Army, Navy, Marine Corps, Air Force, and Coast Guard combined offer numerous opportunities each year for high school graduates in positions similar to those found in the civilian sector. Remember, the military is one more career option to consider in your career planning.

With “fast facts” and “frequently asked questions,” this lesson provided pertinent information for young male adults about the *Military Selective Service Act* and Selective Service registration. This lesson pointed out that it is not hard to register and that there are numerous ways that men can register. The main thing for males to remember is, when you are within 30 days of your 18<sup>th</sup> birthday, *register!*

## LESSON 5: COLLEGE PREPARATION



*admissions*  
*aptitude tests*  
*college*  
*distance education*  
*financial aid*  
*registration*  
*scholarships*  
*transcripts*  
*tuition*  
*university*

### INTRODUCTION

Lessons One and Two in this chapter provided tools to help you make important decisions about your future after high school. You learned how to develop a career strategy, how to determine your aptitude for different careers, and how to create a career portfolio that organizes all the pieces of your high school life.

Lessons Three and Four showed you the opportunities and benefits of civilian and military career choices, how to determine your aptitude for different choices, and how to pursue them.

This lesson will help you prepare for **college**. It will tell you what you need to know about the different types of colleges, the admission process and requirements, and ways to finance college.

## DECIDING WHETHER COLLEGE IS RIGHT FOR YOU

Before you can begin preparing for college, you have to ask yourself a few questions. “What are my reasons for attending college?” “What are my reasons for not attending college?”

Attending college is not the only way to attain your career goals. It is possible that certain careers can be pursued without a traditional four-year college program. Take nursing for example. You must earn either a two-year associate degree or a four-year baccalaureate degree to qualify for a job as a registered nurse. However, in a two-year program at a community college, you would not take the courses in management and public health found in the four-year counterpart, but you would get more clinical experience.

If a traditional college or **university** does not cover your career choice, you might explore the opportunities that a Business, Trade, or Technical School has to offer. The length of study at these schools varies from a few weeks to a few years. You can learn a particular skill or trade and earn a diploma, certificate of completion, or a license of some sort following the completion of the program. Some examples of occupations for which these schools can provide instruction are court reporting, hairstyling, computer repair, and cooking.

Another alternative to a four-year college program is E-learning, or **distance education**. Distance education has its advantages. The reduced need for buildings, housing, and personnel costs may make tuition more affordable.

Online classes through distance education institutions or universities are often more convenient and can be taken at different times and places. Other distance education programs, may make use of other technologies including the following: video, audio, audio-graphics, text-based correspondence, radio, broadcast TV, etc. Additionally, many employers offer distance classes on the job.

If your career choice does not require going to college, you need to first identify the workplace skills and experiences necessary to pursue your career goals, then find the resources that help you reach them.

### **HOW CAREERS AND MAJORS ARE RELATED**

Do you know what you want to be when you grow up? Do not feel that you are far behind if you do not at this stage of the game? Many students don't have an idea until they actually start taking college classes and find what interests them. Choosing your college major is one of the most important decisions that you will make.

Taking a personal assessment and discovering your aptitudes, interests, abilities, and personal preferences, and then matching them with occupations, can lead to a major in college.

You can do research on your own to learn where and how to get information on different careers. If you meet a person who has an interesting job, ask them if they have a degree and in what major.

Many people have careers that are not strongly related to their college major. Employers look for well-rounded people who have done well in college no matter what their major was.

It is most likely that you will be working for the majority of your adult life. Choosing a career or college major that fits with your values, interests, and abilities will likely lead you in the direction of job satisfaction.

### **THE ADMISSIONS PROCESS**

The process of applying to college should begin in the fall of your high school senior year. If you are applying to more than one college, the process can become overwhelming. It is important that you are organized and have your career development portfolio up to date.

The following steps outline the major tasks involved in the admission process:

1. Gathering applications from the colleges you are considering
2. Knowing the application deadlines for each college
3. Completing and mailing each admission application
4. Applying for **financial aid** (keep in mind application deadlines)
5. Applying for **scholarships** (keep in mind application deadlines)
6. Applying for campus housing if you are not living at home while you attend college
7. Making your college choice, enrolling, and registering for classes

### **GENERAL ADMISSION OR ENTRANCE REQUIREMENTS**

Admission or entrance requirements can differ from one college to another, however there are basic criteria that are required for the majority of colleges.

One of the basic admission requirements is that you must have graduated from an accredited high school or have earned a GED (General Equivalency Diploma). Many colleges require specific coursework or curricula from high school. For example, a college could require that you have four years of English, three years of Math, two years of History and Science, as well as a required number of course electives. Some colleges look at your grade point average, your rank-in-class (this is usually found on your school **transcripts**), and/or standardized test scores such as ACT (American College Test), or SAT (Scholastic **Aptitude Test**.)

## WAYS TO FINANCE COLLEGE

You have your list of colleges that you would like to attend. Everything is perfect, from the exact major you want, to the size of the campus, to a picture perfect location. Your next step is to look at the costs and figure out which ones you can afford. For most students, the **tuition** and other higher education expenses require seeking funding from someplace other than parents. There are two forms of financial aid funding for college: “gift aid” and “self help aid.”

### GIFT AID

Gift aid does not have to be paid back. It can come from a variety of sources, businesses and foundations, community groups, and the colleges and universities to which you apply. There are two forms of gift aid:

- *Grants* are awarded based on your financial need
- *Scholarships* are awarded based on your academic merit.

### SELF-HELP AID

You or your parents may need to borrow money for your college education. *Loans* are normally repaid with interest. Some loans do not need to be repaid until you have graduated or left college for some other reason.

*Student employment* is another form of self-help aid. There are three common forms of student employment:

- Federal and state work-study programs
- Teaching Assistantships and Research Assistantships
- Regular part-time employment during the academic year or the summer months

Finding college funding can be a complicated and confusing process. Following a few ground rules will give you an advantage in navigating the process.

1. Make contact with your college’s financial aid office early.
2. Have all of the verification information you need by submittal deadlines.
3. Organize your information and keep your portfolio files updated.

## CHOOSING AN EDUCATIONAL INSTITUTION THAT FITS YOUR NEEDS

Choosing a college is probably one of the first major decisions you will make in your life. This is where the work that you put into your career development strategy begins to pay off. You have a plan and it will help you make the best possible decision as to which college to attend.

The following tips will help you choose the right college:

- You will most likely receive brochures from colleges through the mail. Read them and if you are interested, request more information.
- Request information from other colleges that in which you are interested.
- Talk to your parents, friends, and other family members about college, the colleges they attended, and their personal experience with college.
- Write down what you are looking for in a college.
- Make a “wish list” of colleges you would like to attend.
- Complete the process by narrowing down the list to three to six schools.
- Apply to each of these colleges.



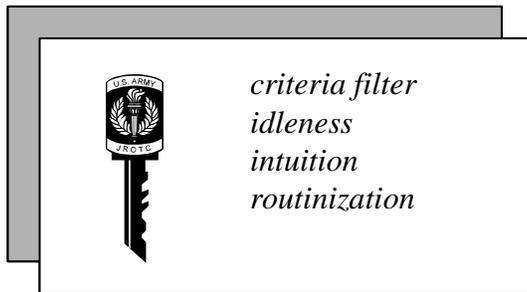
## CONCLUSION

After you have gone through the process of picking a major, applying for financial aid, choosing and applying to a college, you now wait to get accepted. Once you are accepted, you will need to contact your chosen school to find out its **registration** procedures. There are no guarantees in this process, but you can be assured that if you followed the suggestions in this and the other lessons in this chapter, are committed to the process and motivated to succeed, you will reach your career goals.

Material for this lesson was adapted from the Website CollegePrep 101 by Lance Millis at <http://home.okstate.edu/homepages>

## PLANNING SKILLS AND SOCIAL RESPONSIBILITY

### LESSON 1: MAKING THE RIGHT CHOICES



#### INTRODUCTION

Decisions we make can shape our lives. Whether we make these decisions consciously or unconsciously, they represent how we respond to the opportunities, challenges, and uncertainties of life.

- Will I go to college?
- What college will I select?
- What will I study?
- Where will I live?
- When will I get married?
- Who will I marry?
- When will I change jobs?
- How will I invest my money?
- When should I retire?

Asking and answering these questions establishes our way in society and in the world. We all fulfill many roles in our lives. The decisions we make in those roles define our successes and failures.

#### USE A DECISION-MAKING PROCESS

Even more important than *what* you decide, is *how* you decide. The way to increase your odds of making a good decision is to learn to use a good decision-making process — one that helps you get to a solution with a minimum loss of time, money, energy, or comfort.

An effective decision-making process will do the following:

- Help you focus on what is important
- Be logical and make sense for you
- Allow you to think of both the factual and the emotional consequences of your actions
- Not require an unreasonable amount of research
- Allow you to have an informed opinion
- Be easy to use and flexible

An effective decision-making process will be valuable to you both for major decisions as well as the minor, more common decisions. The more you use a process to make decisions, the more it will become a natural part of your problem solving, and the more efficient you will become. As you grow more skilled in decision-making, it will become second nature to you. Others may start asking you for help with their decisions!

#### THE FIVE-STEP DECISION PROCESS

Faced with a decision you have to make, you may do a lot of worrying. Worrying about making a decision does not accomplish anything.

You need to separate the issues, examine the facts, and work toward reaching a decision. The important thing is to follow a process. One such decision-making process is a simple five-step plan called the F-I-N-D-S plan.

***The F-I-N-D-S Decision-Making Model***

1. *Figure out the problem.*
2. *Identify possible solutions*
3. *Name the pros and cons of each choice*
4. *Decide which is the best choice and then act on it*
5. *Scrutinize the decision*

***FIGURE OUT THE PROBLEM***

You cannot solve a problem until you have clearly defined the problem. Try to identify the problem in clear and precise terms.

For example, suppose you decide that you are unable to go to a concert. Simply stating the problem in vague terms, “I am not able to go to the concert Saturday night,” won’t get you there. Did you make another commitment for the same night? Are you unable to borrow the car for the evening? Are you grounded for the week of the concert? Or maybe you just don’t have the funds for the ticket.

If the money for the ticket is what is keeping you from the concert, then state the problem as, “I need to come up with \$45.00 for the cost of the ticket.” This is a much clearer statement of the problem.

***IDENTIFY POSSIBLE SOLUTIONS***

In order to come up with a list of possible solutions, you can either brainstorm by yourself, or even better, involve others in looking for the solutions. The more people you can question about your problem, the more likely it is that you will hit upon the best solution.

Every idea that comes up should be considered. Sometimes the best answers are developed from an idea that does not seem feasible when you first hear it. Make an initial list of possible solutions. Look at your list. See if any other ideas come to you, evolving from something on the initial list.

Once you are satisfied that you have a good number of possible solutions, you are ready to narrow down the possibilities.

***NAME THE PROS AND CONS OF EACH SOLUTION***

Once you have come up with a list, take each possible solution and think about what it would take to accomplish that solution. Think of the consequences of each idea.

In the concert ticket example, you may be able to earn the money, borrow the money, steal the money, or use your savings. Obviously, stealing the money is eliminated when you think of the consequences and the morality issue. You may decide to borrow the money from your parents or a friend and pay it back over the next month from the money you earn at your part-time job. Perhaps the concert is important enough for you to use money from your savings. Maybe your job will pay enough between now and the concert for you to purchase the ticket.

While you are considering your choices, ask yourself some questions:

- Will I feel good about this choice?
- How will my family feel about this choice?
- Will certain risks be involved?
- Am I willing to take such risks?
- Will this choice be satisfying to me?
- How will I feel about this choice when I look back at it in the future?

Once you have considered the possibilities and the consequences, you are ready to make a decision.

### *DECIDE WHICH IS THE BEST CHOICE AND THEN ACT ON IT*

The list of possibilities and consequences should clearly indicate one or more “best choices.” Don’t worry if there are several good answers. There will be situations where more than one decision will get you to your goal. About that concert ticket — taking out a loan or using your savings may both be equally good decisions. Don’t be afraid to make a decision and stick with it.

There are techniques you can use to simplify the choices. Depending on the type of choice you are making, one of these techniques may help you narrow down your choices:

- **Criteria Filter** — There may be some fixed set of criteria that the alternatives must meet. For example, if you were choosing a car, there may be a maximum amount that you can spend.
- **Idleness** — You may decide to do nothing, let others decide for you, or just wait and see what happens. You will have

identified the consequences of this choice, and will have to deal with those consequences. Sometimes, however, not making a decision is actually making a decision. For example, if you decide not to go on a trip to France, you are actually deciding to stay home.

- **Intuition** — Sometimes you follow your heart and make a decision based on your feelings and emotions. You go with what your gut tells you. For example, when you are offered two part-time jobs with equal pay and benefits, you may decide to go with one because “it just feels right.”
- **Routinization** — There may be a decision that you have routinely made in the past, which may help you now. For example, if you always study for your Friday math quiz on Thursday afternoon, you will have an easy time figuring out when you will need to study each week.

Once you have made a decision, it is important to monitor the results. Both right and wrong decisions can teach you something for the future decisions you make.



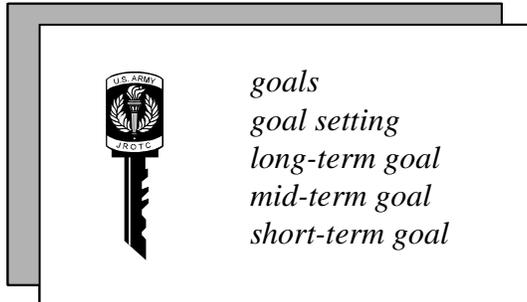
### *SCRUTINIZE THE DECISION*

This is where the learning takes place. If the result was successful, then you will know that this was a good solution if the problem should come up again. If the decision did not lead to success, then you will know that it would be best not to make that decision again.

## **CONCLUSION**

The ability to make good decisions takes a lot of practice. Using a process (such as F-I-N-D-S) may seem like a large amount of work just to make a decision. Like many other things, once you start using the process, whether it is on major or minor decisions, you will find that solving problems and making decisions will become easier and easier. You will learn from the wrong decisions as well as the right decisions. With a good process, you increase the odds that your decisions will be well thought out and the results will be positive.

## LESSON 2: GOALS AND GOAL SETTING



### INTRODUCTION

Have you ever gotten into the car and started driving with no destination in mind? How would you know which route to take if you didn't know where you wanted to go? How would you know when you had arrived?

Think of a goal as your destination. The most efficient way to get from one place to another is to identify the final destination and follow a map that will guide you in your journey. Goals give you direction and keep you focused on a purpose. If you go through life without goals, you will probably waste a lot of time and energy. Time wasted can never be recaptured.

Setting and achieving goals is one way to achieve a more fulfilling life. This lesson not only introduces you to types of goals and to the concept of **goal setting**, it also explains why goals are important and how to set them.

### WHAT IS A GOAL?

A **goal** is an end to which an effort is directed. In other words, you establish a target and then take careful aim and shoot for it. A goal should also be something that is important to you and consistent with your values. Some goals are more difficult and

time-consuming than others, and sometimes you may initially fail to achieve your goal. When this happens, you can modify the goal somewhat, and try to hit it again. You cannot succeed if you do not keep trying.

### WRITING GOALS

It is important to write your goals down. A written goal can be read over and over again until it becomes imprinted on your brain. If a goal exists only in your head, then it is just a dream and may be forgotten, but a written goal statement is a declaration of the outcome one plans to achieve. In order for a goal to be effective, however, it must be **Specific, Positive, Achievable, and Measurable**. You can use the acronym S-P-A-M to evaluate the goals you set against the following criteria.

- **Specific.** It must be explicit, clearly defined and have a specific plan of action. For example, "I will be a better student" is too vague to be a useful goal, whereas, "I will get an A on my next history exam" is more specific, and therefore, a much better goal.
- **Positive.** You are telling yourself that you *will* do something, not that you *might*, or you think you can. For example, "I want to do 60 sit-ups in a minute" is only a desire, whereas, "I will do 60 sit-ups in a minute" is a positive goal. A positive goal statement is very powerful.
- **Achievable.** The goal has to be within your power to make it happen through your own actions. It must be something you have a reasonable chance of achieving.
- **Measurable.** The goal must be defined in terms of results that are measurable, or actions that can be observed. If your goal

is not measurable, you will not know if you have attained it.

## WHY ARE GOALS IMPORTANT?

If you allow only outside forces to rule your life and set goals for you, you might feel bored, overwhelmed, or unsure of the decisions you face. However, by setting and achieving your own goals, you have the means to establish a framework, which will build confidence, reduce stress, and ease decision-making.

Some goals may seem overwhelming; however, by setting interim goals you can break down a goal into tasks that are more manageable, reducing your level of stress and anxiety. This process also enables you to explore and plan out all the steps necessary to reach the goal. When you have a map, the journey does not seem as daunting.

As you accomplish the goals you set for yourself, it gives you a good feeling, and builds self-confidence. You can feel proud of a job well done. This is another benefit of setting goals.

Goals fill the need for disciplined work, play, study, and growth. By setting goals, you can avoid wasting your time, energy, and effort. Goal setting makes the difference between mediocrity and excellence.

## TYPES OF GOALS

Goals are divided into three categories: short-term, mid-term, and long-term. You can accomplish **short-term goals** in an hour, a day, or a week. They may often be the beginning steps to **mid-term** or **long-term goals**. Short-term goals do not require much planning, as you can usually accomplish them in very little time. An example of a short-

term goal would be, “I will complete my homework assignment for algebra class and turn it in on time.”

Mid-term goals are of intermediate length that often require more time and planning than short-term goals, especially if they lead to another goal. A mid-term goal may also be a step that leads to achieving a long-term goal. An example of a mid-term goal would be, “I will get an A in algebra this semester”

Long-term goals require a lot of time and planning to accomplish. They are usually your life goals. Setting a goal to become a doctor is a long-term goal. The planning for these goals may begin early in your life, even if you do not realize it. These goals may even begin as things you wish for instead of things to do. An example of a long-term goal would be, “I will get accepted to a top-rated Engineering School.” As you can see, this goal would take years of planning and work to fulfill.

## HOW CAN YOU SET GOALS?

Think about what your life would be like if you had everything you wanted. If that was ever the case, you would not have any goals to accomplish . . . and without goals, life would not have any direction or commitment. By setting goals, you are able to direct your life and commit to that direction. The kind of life that you have in the future is closely related to the goals you set today. Therefore, you must constantly strive to set meaningful and realistic goals for yourself, and to do your best to achieve them.

Developing a goal plan begins with deciding which goals are important to you. After you have clearly defined a goal (consistent with S-P-A-M criteria), you need to begin planning how to achieve it. If a goal is

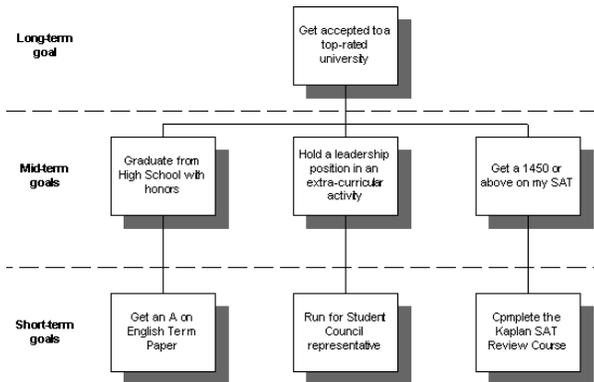
too big, plan various smaller, interim steps that will enable you to reach the long-term goal. Never put yourself in a position where your goals are overwhelming; you may fail simply because the steps involve too much effort at one time. Keep your goals challenging, but realistic. The feeling of accomplishment that comes with completing each small step can inspire you to reach your larger, long-term (or life) goals.

Goal setting is an ongoing process. Since goals get you through every day of your life, you must continually re-evaluate your goals. Some mid- or long-term goals require sacrifices now so that you can achieve them later. You must discipline yourself to reach those long-term goals, resulting in greater happiness and self-fulfillment.

## CONCLUSION

Goals are very important to you life’s development — without them, you would have no direction or commitment. They provide a framework that will help you organize and prioritize the events in your life. When you set and achieve a goal, you feel a sense of personal satisfaction and pride.

### Sample Goal Plan



## LESSON 3: TIME MANAGEMENT



### INTRODUCTION

Think back to this morning. How was it for you? Did you get up on time? Did you have breakfast? Did you have time to do what you expected to do — or what your parents expected you to do? Now, let us go back to last evening. Did you finish your homework? Did you take care of your share of the household chores? Did you watch your favorite television program(s)?

Frustration creeps in when you do not manage time well. On a scale of one to ten (one being *poor use of time* and ten being *great use of time*), how well did you manage your time yesterday? If you can honestly answer nine or ten, give yourself an “A.” If you answered seven or below, then you need to organize your day better in order to gain control of your time and your life.

Every day we are given a precious gift — the gift of time. We get twenty-four hours of it. We each get the same amount, but how we choose to use this time makes all the difference. When you take responsibility for how you spend your time, by planning your day and building a schedule to achieve your goals, you are practicing **time management**.

This lesson will teach you how to plan your day, and how to execute your plan. Planning your day will help you target

academic and personal goals, manage the increasing demands on your time, reduce stress, increase successes, and achieve greater satisfaction and enjoyment of life.

### THE PERFECT DAY

Let us divide the day into five blocks of time: before school, school, after school, before bed, and bedtime.

#### BEFORE SCHOOL

Consider the morning as that part of the day from the time you wake up until the time you leave for school. What is a perfect morning?

- What time would you get up?
- How long would you need to take care of your personal hygiene, grooming, and dressing?
- How much time would you need to take care of your other responsibilities, like helping to get your younger sister or brother ready, feeding the pets, or taking out the trash?
- What other activities must you complete before school and how long do they take?

#### BEFORE BED

Let us back up for a moment. In order to have a perfect morning, you must definitely get some things accomplished in the evening, after dinner and before you go to bed on the preceding day.

- How much time should you spend doing homework and chores?
- How much time is left for talking on the phone or watching television?

- What is your nighttime ritual before going to bed? Do you choose your clothes for the next day, pack your book bag, or prepare your lunch? How long does all that take?
- What time do you need to go to bed in order to get your “forty winks” of sleep? For most of us, eight hours of sleep is almost essential.
- What else do you need to do after dinner and before bed? Planning a perfect evening sets the stage for a perfect tomorrow.

### *AFTER SCHOOL*

Let us back up some more. Consider what goes on after school? Do you participate in a club, in a sport, or in the band? Do you work after school?

Is there time before, during, or after practice or work to accomplish something meaningful? If you do not practice or work everyday, what would be the best use of your time after school and before dinner? This period can amount to between two to four hours, and it should include meaningful activities as well as leisure time and time to rest. If you take the school day and your sleeping time out of the equation, the time in your life that is within your control is the time before school, after school, and before bed.

### **CREATING A DAILY ACTIVITY MATRIX**

Before you can begin to manage your time effectively, you need to know how you currently spend your time. Completing a daily activity matrix can help you in this endeavor.

### *Daily Activity Matrix*

Activity	Minutes a Day	Days a Week
School		
School related extracurricular activities		
Playing sports (not school related)		
Homework and studying		
Watching TV		
Playing videogames		
Reading for pleasure		
Shopping		
Work		
Chores and family responsibilities		
Spending time with friends		
Spending time with family		
Church and all related activities		
Eating		
Sleeping		
Other:		

Look at the matrix. If you take the total time spent on these activities and subtract that from 1440 (the number of minutes in a day) you end up with the number of minutes you spend in unscheduled activities. Is some of this time wasted? Remember that time wasted can never be regained. There are many ways that people waste time each day. Some of the most common **time wasters** are:

- **Procrastination**, or putting something off that needs to be done. For example, you procrastinate writing the essays for your college application because it is burdensome.
- **Poor Organization**. If you spend every morning looking for your backpack before you catch the bus to school, you are poorly organized, and you are wasting time.

- Crisis Management, or spending a lot of time solving a large and immediate problem. For example, you forgot you had a math quiz today, so now you have to drop everything else and cram for your quiz. This is a time waster because if you had planned better, you would not have had a crisis in the first place.

Could your time be better spent elsewhere?

Now that you have thought about it, you are ready to organize your day on paper. You should always write down your plans, keeping in mind that if you fail to plan, you plan to fail.

### DAILY PLANNING AND GOALS

Think about what you want to accomplish in school this year, and what part of it is achievable within the next six weeks. Do you want to:

- Make the honor roll?
- Work toward earning an academic, military, or athletic scholarship?
- Write an article for the school newspaper?

A daily plan should be aligned with your short-term, and mid-term goals, which will, in turn, enable you to achieve your long-term goals. When you know that your daily activities are helping you achieve your goals, you will see that there is an increased meaning in the tasks you do every day and you will feel a sense of accomplishment at the end of the day, knowing that you are working toward the achievement of your goals. When you take responsibility for planning your daily activities, you are in control of your own destiny.

The first step toward creating a daily plan is to prioritize your daily tasks, assigning

a higher priority to those that are most important to you, and keeping in mind those short-term goals that will enable you to achieve your long-term goals. Prioritizing your daily tasks is very important because you can concentrate on scheduling those activities that are of the highest priority first. Items of a lesser priority can be scheduled around the high priority tasks as they fit into the day. You may find that you do not have time to schedule all of your tasks, but you can be assured that you are going to accomplish the highest priority ones.

The image shows two templates for a daily planner. The top template is a table with three columns: 'PRIORITY', 'THINGS TO DO TODAY', and 'DUE DATE'. The bottom template is a vertical timeline titled 'Daily Planner for Today's Date' with a 'TODAY'S SCHEDULE' section. The schedule section has time slots from 6 AM to 3 PM in one-hour increments.

After you have prioritized all of your daily tasks, you are ready to create a schedule or **agenda** for the day. Remember to record the task with the highest priority first, and so on. Use this type of written schedule to serve as a reminder of specific events, due dates, responsibilities, and deadlines.

### THE BIG PICTURE

Planning one day at a time is like admiring a beautiful forest, one tree at a time. If the forest is your life, you may need to get an overview to see where the paths through the forest are leading. In the same way, you should plan in larger time frames to ensure

your days are leading you toward your goals. The daily plan takes you through twenty-four hours of life and keeps you active in the here and now. The weekly plan shows you how to balance your life. You will discover that 168 hours is enough time to work, practice, study, attend meetings, spend time with your family, and have fun with your friends, too.

**WEEKLY SCHEDULE**

NAME: \_\_\_\_\_ WEEK OF \_\_\_\_\_

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8 AM							
9 AM							
10 AM							
11 AM							
NOON							
1 PM							
2 PM							
3 PM							
4 PM							
5 PM							
6 PM							
7 PM							
8 PM							
9 PM							
10 PM							
11 PM							
12 PM							

G.P.A. GOAL: \_\_\_\_\_  
 PERSONAL GOAL: 1) \_\_\_\_\_  
 2) \_\_\_\_\_  
 3) \_\_\_\_\_  
 LIFE GOAL: \_\_\_\_\_

The quarter or semester plans show you the big picture far in advance. You can plan your days and weeks better if you have developed a quarter or semester schedule. They display week by week when all of your tests, projects, mentoring activities, papers, science or math fairs, key social events, athletic or JROTC events, field trips, national test dates, family vacations, etc., are due or will occur. You will be able to determine which weeks are heavily scheduled. You can use the light weeks to start studying and preparing for the heavier weeks.

**SEMESTER SCHEDULE**

NAME: \_\_\_\_\_ MID TERM

Courses & Requirements	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
1									
2									
3									
4									
5									
6									
Extra Curricular									

**PLAN YOUR WORK, WORK YOUR PLAN**

The following tips will help you to more effectively know how to plan your work for a day, week, or longer (quarter or semester); thus, enabling you to do better at working your planning process.

- Make time every evening to review your day and plan your tomorrow.
- Re-evaluate your goals every week, and write short-term goals on your planning sheets. Stay committed to your goals.
- Prioritize your “To Do” list.
- Make a list of things you can accomplish in 15- and 30-minute blocks of time. For example, dusting or emptying the trash, reviewing class notes, learning new Spanish vocabulary (already written on index cards), reviewing mentoring activities, or learning how to work one new math problem. Be ready to fill the in-between times with something useful.

- Use a timer to move you along during tight periods, like mornings before school.
- Schedule something fun everyday. Do your work first and reward yourself with something fun.
- Record your favorite television programs and watch them during planned leisure times.
- Be flexible; shift things around when necessary. Do not get discouraged if you are thrown off schedule by unavoidable circumstances.
- As you finish a task, cross it off your “things to do” list. Plus, add anything you did that was not on the list, then cross it off. Adding and crossing tasks off your list is not only a way of keeping track of what you have accomplished but also a way of acknowledging your accomplishment.
- Enjoy the sense of satisfaction that comes from accomplishing something, no matter how small, and taking definite steps toward your goals.

## CONCLUSION

Few people ever plan to fail, but many people fail to plan. Time is the great equalizer; we all get the same amount everyday. Whether it is used or abused often determines who rises to greatness and who falls to failure. Daily, weekly, and long-term (quarter or semester) planning puts you in charge of your life. Setting specific goals will give you a track to run on and a course to follow. You will know what it is you want, and you will “go for it!”

The cadet who routinely plans, reviews the plan, and adjusts it to the “ups” and “downs” of life will find this planning process very rewarding. Planning will help you to manage life’s increasing demands while targeting academic and personal goals. Daily triumphs, no matter how small, will translate into goal achievements, generating greater satisfaction and enjoyment of life.

## LESSON 4: CADET ETIQUETTE GUIDE



*comradeship*  
*cordiality*  
*curtly*  
*dining-in*  
*dining-out*  
*etiquette*  
*martial*  
*monopolize*  
*palate*  
*place cards*  
*protocol*  
*receiving line*  
*repast*  
*sorbet*  
*stag*  
*stilted*  
*tines*

### INTRODUCTION

During your high school years, JROTC experience, and life after graduation, there will be occasions when you will be encouraged to interact with people socially. By knowing the rules of proper etiquette, you will not only make a good impression, but you will also be more relaxed and confident in these situations.

This lesson is designed to provide information on proper social conduct and behavior, an important element in your character development. Although the lesson concentrates on the etiquette and manners required at your Cadet Ball, this information has obvious carry-over into other aspects of your life.

### ETIQUETTE VS. MANNERS

**Etiquette** is a code of behavior or courtesy based on rules of a polite society. *Manners* are socially correct ways of acting as shown in prevalent customs. Manners are based on kindness, respect, thoughtfulness, and consideration. Good manners are timeless, whereas, the rules of etiquette may vary with the changing times.

As you read this lesson on the rules of proper etiquette and the practice of good manners, remember that social etiquette and good manners are nothing more than common courtesy, sincerity, and consideration for others. It is important to treat others in the same way that we wish others to treat us. This is the very foundation on which a polite society is built.

### MAKING INTRODUCTIONS

Introductions should be simple, direct, and dignified, and the act of making them should be an occasion of formality. They should be made whenever people gather socially, even for a short period of time. Introductions should be made automatically and immediately when discovering that two people do not know each other. You may make these introductions or have someone else do it — as in a **receiving line**, but you cannot neglect an introduction without running the risk of being rude or negligent. There is nothing mysterious about making introductions, unless you do not know what to do!

### THE RECEIVING LINE

Introductions at a formal reception, such as the annual Cadet Ball, may often include a receiving line. It is customary, and often mandatory, that all cadets and their guests go through the receiving line upon arrival. The people who would be in the receiving line are (from left to right):

- The host (Senior Army Instructor or commander of the unit holding the reception)
- The spouse or guest of the Senior Army Instructor or unit commander
- The ranking honored guest, with his or her spouse/guest
- Other dignitaries with their guests

At a reception, such as the Cadet Ball, the lady precedes the gentleman through the receiving line. The gentleman, whether or not he is the Junior ROTC cadet, introduces the lady first then himself to the Cadet Adjutant, who often announces the names of all attendees to the host. A lady or gentleman attending **stag** should introduce him or herself to the adjutant. Even though the adjutant may be a friend of yours, do not shake his or her hand. The adjutant will announce your name to the host as you step in front of him or her. A simple, pleasant greeting and a cordial handshake are all that is necessary when moving through a receiving line. Save lengthy conversation for later. Should your name get lost in the line, repeat it for the benefit of the person doing the greeting.

In the absence of an adjutant, the lady still precedes the man through the receiving line. He introduces her first, and then introduces himself directly to the host. Once you have finished this line, you may proceed to the serving of refreshments or conversation with other guests and await the signal for the next event. If the receiving and dining rooms are separate, do not enter the dining room until that signal is given.

For the remainder of the event, you will be responsible for making introductions as you move around the room and during dinner. Follow the guidelines below so that you will know what to do.

## FORMALITY OF INTRODUCTIONS

When making an introduction, avoid the use of elaborate phrases. Recall that introductions should be simple and direct. The most generally accepted introductions are: “. . . , *may I introduce . . .*” or “. . . , *I would like you to meet . . .*” You should not say “. . . , *meet so-and-so.*”

It is a general rule that you introduce juniors to seniors (this applies to age and military rank), gentlemen to ladies, and so on. However, the degree of formality used when making the introduction depends on the position of the persons involved and/or the solemnity of the occasion.

### *Examples of Formal Introductions*

When introducing someone to a dignitary, mention the dignitary first to show respect for the office he or she holds. Ensure that you use the correct formal title or appellation for the dignitary when making the introduction. A few of the more common titles are listed below.

- Introduce a doctor, judge, or bishop by their titles.
- Introduce members of Congress by Senator or The Honorable.
- Introduce a Catholic priest by Father, and an archbishop by Your Grace. Some Protestant clergy use titles such as Reverend, Pastor, or Doctor, whereas others prefer to be addressed as Mr., Mrs., Miss, or Ms. It is best to ask the individual how he or she prefers to be introduced before the introduction is made.
- Introduce military personnel by their rank; for example, when introducing your guest to one of your JROTC instructors, you

might say *“First Sergeant Allen, I would like you to meet Miss Jones.”*

If the situation arose where you had to introduce a teacher to a parent, you would use the teacher’s name first. For example, *“Major Cooper, I would like you to meet my mother, Mrs. Eastern.”* If both of your parents were there, you would introduce the woman first and then the man, such as, *“Major Cooper, I would like you to meet my parents, Mrs. Eastern and Mr. Eastern.”*

### *Examples of Less Formal Introductions*

When introducing two people who you know very well and who have heard you talk of the other, you may be more casual. For example, to introduce a squad buddy to your sister, you might simply say, *“Susie, this is Pete.”* In this example, it is perfectly acceptable to make the introduction using the first names of both people; however, do not make an introduction to an adult, senior, etc., using that person’s first name.

In some cadet battalions or military academies, cadets have only one formal title as far as introductions are concerned — that of a Cadet. In those situations, the rank structure is not used when addressing cadets socially. For instance, you would say, *“Doctor Jones, this is Cadet Draper,”* not *“Doctor Jones, this is Cadet Lieutenant Draper.”* Furthermore, at some schools cadets may be addressed as *“Mr. Draper”* or *“Ms. Draper”* during conversations. For example, *“Mr. Draper, I am pleased to meet you.”*

### **METHODS OF MAKING INTRODUCTIONS**

When making an introduction, speak each name slowly and clearly so there can be no possibility of misunderstanding on the part of either person. When you are on the receiving end of an introduction, make a special

point of listening to the other person’s name. If you forget the name, or did not hear it, ask — with an apology — for the name to be restated. Then, use the name several times in conversation. This will help you remember it.

When being introduced, it is proper to return a courtesy such as, *“Nice to meet you,”* *“Hello,”* *“I am really glad to meet you,”* or *“How do you do?”* If you were the one making the introduction, it is not appropriate to walk off and leave the two people staring at each other. As the person who made the introduction, you should either say something about each person to get a conversation started or excuse yourself so that you and your guest can continue to move about the room or participate in some other event.

When starting a conversation, mention something of common interest to both parties. For example: *“Captain Davis, I would like you to meet Michael Knight. Captain Davis is my Senior Army Instructor, Michael. Sir, Michael hopes to enroll in JROTC next year.”*

Before taking leave of the person whom you just introduced, your guest should respond with *“Good-bye, I am very glad to have met you,”* or something to that effect. (**Note:** In taking leave of a group, it makes no difference if you were introduced or merely included in their conversation, you politely and quietly respond good-bye to anyone who happens to be looking at you, without attracting the attention of those who are unaware that you are leaving.)

### **WHEN AND HOW TO SHAKE HANDS**

When gentlemen are introduced to each other, they typically shake hands. Additionally, ladies who are JROTC cadets shake hands during introductions. However, as a more general rule, whenever a lady or gentleman extends their hand as a form of

greeting, the receiving party should reciprocate the gesture. Nothing could be more ill bred than to treat **curtly** any gesture made in spontaneous friendliness. At the end of the introduction and/or conversation, those who were drawn into it do not usually shake hands when parting.

A proper handshake is made briefly; but there should be a feeling of strength and warmth in the clasp. At the same time, maintain eye contact with the person whose hand one takes. Do not shake a hand violently, grasp the hand like a vise, keep the handshake going for a long period of time, or offer only your fingertips.

### *OTHER FORMS OF INTRODUCTIONS*

If seated, one rises to acknowledge an introduction and remains standing while other members of the party are being introduced to one another. When being introduced to ladies or gentlemen who are seated, you need not rise if rising may inconvenience others at the table.

When being introduced to a lady out-of-doors, a gentleman in civilian clothes may remove his hat. In addition, a gentleman will ordinarily remove his glove to shake hands unless he is a member of a color or honor guard. However, if he is confronted with a sudden introduction when he has gloves on, making it slow and awkward to remove a glove while the other person is standing with his or her hand outstretched, it is better to shake hands with the glove on with no apology. (**Note:** You would also use these rules as part of general public behavior, even in casual situations.)

If you desire to introduce two people who are not near each other, you would typically take the junior to the senior, the young lady to the older person, the gentleman to the lady and so on.

When in doubt whether two people have met, it is perfectly permissible to ask. Be sure to address the senior first, using a courtesy such as “*Colonel Smith, have you met Miss Jones?*” If they have not met, make the introduction. Usually, most people will consider your question as tantamount to an introduction, and will proceed with the how-do-you-dos. The important thing is not to assume that people know each other. There is no harm in introducing people who have already met; it is, however, quite inconsiderate to have strangers together without an introduction.

It may sometimes be an erroneous assumption that every cadet knows every other cadet. Do not hesitate to introduce cadets if you are not sure they know each other.

Some people have a difficult time remembering names. Not remembering a name is a common failing and can be easily forgiven. However, forgetting a name is not an excuse for not making an introduction. If necessary, ask for the person’s name — with appropriate apologies — before starting the introduction. For example, “*I beg your pardon, sir (or ma’am), but I have forgotten your name. Thank you, sir (ma’am). Colonel Smith, I would like you to meet Miss Jones.*”

In certain situations, you may find it necessary to introduce yourself to another person. If you are next to someone you do not know and no one is around to make an introduction, it is perfectly acceptable to make your own introduction. Use a greeting such as “*Hello, I am Tom Frazier,*” while shaking that person’s hand. Do not say, “*What’s your name?*” A good reply to you would be “*Ted Wentworth, nice to meet you.*” It is then up to both people to start their own conversation.

## DINING TIPS

Table manners are an important part of social conduct. Proper manners around the table are not just reserved for special occasions; you should use them whenever you dine. Relaxed politeness is the key to any dining situation. When you know what to do, you can relax and enjoy yourself. This section will help you learn the rules of the table.

### MANNERS AND COURTESIES BEFORE EATING

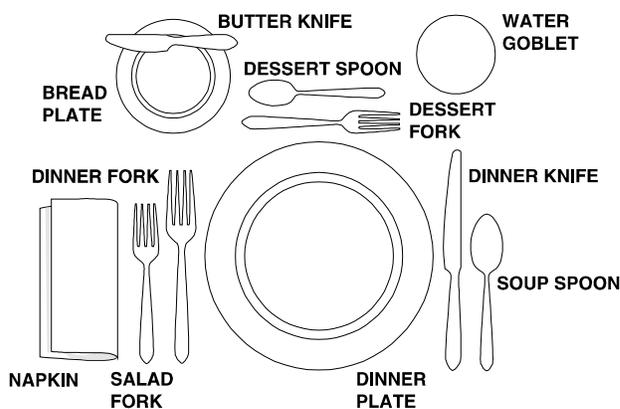
A gentleman does not sit down until all the ladies at his table are seated. He can help with the seating by holding the chair, first for his guest, then for other ladies near him if the ladies outnumber the men. He does this by pulling out the lady's chair from the table far enough for her to move easily in front of it. Then, as the lady sits down, he gently pushes the chair under her until she is seated. When all ladies at the table are seated, he may then take his seat by going around the left side of his chair. Posture at the table should be straight, but not stiff.

If a lady leaves the table at any time, the gentleman who seated her rises. When the lady returns to the table, her escort or the gentleman who seated her rises and the courtesies mentioned in the preceding paragraph are repeated.

The polite dinner guest will not touch anything on the table, not even the napkin, until after the blessing (or invocation) has been said or until it is obvious that there will be no blessing. Then, you may pick up your napkin and partially unfold it on your lap. Do this inconspicuously — do not unfold a dinner napkin completely or above the table.

At a large dinner, there may be a vast array of silverware at the place setting,

consisting of one or two knives, two or three forks, and two or three spoons. If there is any doubt about the correct piece of silverware to use for a particular course, one generally starts with the outside piece of silverware and works inward. If you end up without a spoon or a fork, it is appropriate to ask for a replacement.



Specialized pieces of silverware, for which their function is self-explanatory, include: the butter knife, soup spoon, dessert fork and spoon, iced tea spoon, oyster fork, and fish knife and fork. The number of pieces of silverware indicates the number of courses to expect. A six-course meal, for example, might include soup, fish, **sorbet** (a **palate** cleanser), salad, an entrée, and dessert. The placement of the silverware indicates the order of these courses.

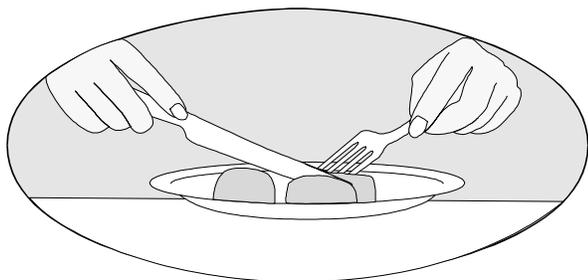
Also included will be a water goblet that is located on the right side of the place setting, a dinner plate, and a bread plate that is located on the left side of the place setting.

Wait until the head table (if there is one) is served *and* for everyone at your table to be served before starting to eat. Courses are served from the left and removed from the right.

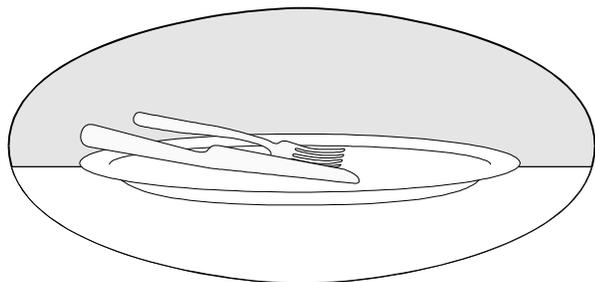
## *METHODS, MANNERS, AND COURTESIES OF EATING*

### **American vs. European Styles of Eating**

In the American style of eating, hold the fork in your left hand, **tines** down with your index finger on the back of the fork, to secure the food being cut with the knife, which is held in your right hand. Cut in front of the fork, not behind it. After cutting not more than two or three bites of food, place the knife on the plate and transfer the fork to your right hand. This is called the “zigzag” method.



*Using the Knife and Fork Together*



*Resting Position — American Style*

Then, when not using your knife and fork, place them together across the top of your plate. This is the resting position. When you have finished the main course, place the knife and fork beside each other on the dinner plate diagonally from the upper left to lower right, or from the 10:00 to the 4:00 position. This is the finished position and indicates that your plate may be removed.

In the Continental or European style, hold the fork in your left hand and the knife in your right hand. Cut and eat with your fork, tines down, while still holding it in your left hand. The knife can remain in your right hand throughout the meal to cut food or to help push bits of food onto the fork. Only one bite of food is cut and eaten at a time.

Then, when not using your fork, rest it diagonally on the left side of the plate with the tines down and close to the center of the plate. Rest the knife diagonally on the right side of the plate with its point toward the center of the plate. When finished, place them as described in the American style with the fork tines down.

### **Proper Use of Silverware**

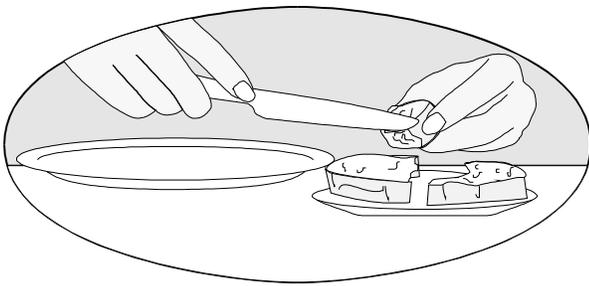
- Once you have used a piece of silverware, do not place it back on the table.
- Do not leave a used spoon in a cup; place it on the saucer.
- Do not leave a soup spoon in a soup bowl, although you may leave it on a soup plate if one is provided; otherwise, place it on the dinner plate when not in use.
- Do not lay a knife with the handle on the table and the tip of the blade on the edge of the plate. This also applies to the fork.
- Leave unused silverware on the table in its proper position.

### **Proper Way to Eat Soup and Finger Foods**

When eating soup, the motion of the spoon should be away from you while filling it. Sip from the side of the spoon; do not slurp. If it is necessary to tip your soup bowl, tip it away from you. If your soup is too hot to eat, let it sit until it cools; do not blow on it.

Bread, rolls, biscuits, nuts, fresh fruit, olives, celery, radishes, raw carrots, cookies, and small cakes may be eaten with your fingers. Place finger foods such as these on the bread plate, or in the absence of that plate, on the salad or dinner plates.

Break your individual servings of bread, rolls, and large biscuits into small pieces before buttering and eating them, one piece at a time. Do not cut these items. Buttering and eating a roll or whole slice of bread is also not appropriate.



### Proper Use of a Napkin

You should not tuck the napkin under your belt or wear it like a bib. Napkins are for dabbing lips, catching spills, and covering sneezes. Do not use a napkin to blow your nose.

Before taking a drink of water or any other beverage, wipe your lips with your napkin to avoid leaving smears on the glassware. One quick, light pass with the napkin should suffice.

If you must leave the table during dinner, say, “*Excuse me, please*” with no explanation, and place your napkin on your chair. When leaving the table after dinner, place the napkin on the table in loose folds to the right of your plate. Do not refold, crumple, or twist it. Also, push your chair to the table on every occasion.

### Basic Table Manners

If **place cards** are used, do not move or remove them. In addition to indicating the specific seating arrangement, place cards are used to make guests feel welcome and to help people get to know one another in large social settings.

Take small bites. Large mouthfuls of food are unsightly. Do not chew with your mouth open or make loud noises when you eat. It is not polite to talk with food in your mouth.

Do not lick your fingers; use your napkin.

If you burp, say “*Excuse me,*” to no one in particular and continue eating. Do not make a big deal out of it.

Hats, gloves, cameras, purses, sunglasses, etc., do not belong on the table. If it is not a part of the meal, do not put it on the table. Hats and gloves belong in the cloakroom. You may place cameras and purses under your chair.

Your hands should go no farther over the table than is necessary to eat and to pass things. Between courses, place your hands in your lap or at your side. ***Do not place your elbows on the table.***

If you cannot easily reach something on the table, ask for it to be passed to you with a please and a thank you. If you are the one passing something, place the items on the table for the person to pick them up. When passing salt and pepper, pass them together.

If food spills off your plate, you may pick it up with a piece of your silverware and place it on the edge of your plate.

If you drop something, leave it on the floor until the meal is over; then pick it up. If a piece of your silverware falls onto the floor, pick it up if you can reach it and let the server know you need a clean one. If you cannot reach it, tell the server you dropped a piece of your silverware and ask for a clean one.

Do not season your food before you have tasted it.

Hold a long-stemmed glass with the thumb and first two fingers of your right hand at the base of the bowl or on the stem.

It is not appropriate to ask for a “doggy bag” during a formal occasion.

Do not reprimand a server. Make any complaints to the person (cadet) in charge of the ballroom arrangements.

If food gets caught between your teeth and you cannot remove it with your tongue without being too noticeable, leave the table and go to the restroom where you can remove the food in private.

At the end of dinner, and after the host and honored guests have departed; make sure that you say good-bye to everyone at your table before departing.

### Table Talk

Conversation is an important part of social interaction around the table. It is perfect for the enjoyment of good companionship and a pleasant meal. A few important tips are:

- Try not to talk too fast or too slow.
- Keep the conversation light. Small talk includes casual, unofficial, interesting things in everyday life, such as the weather, music, upcoming events, movies, or sports. Keep topics of conversation safe

and non-controversial. Avoid discussions about religion, race or politics, or any controversial issue. Avoid health issues, off-color jokes, and gossip.

- Answer respectfully when addressed.
- Be mindful of engaging in conversation with a person who has just taken a bite of food. Remember; do not talk with food in your mouth.
- Loud voices/laughter can be disturbing to others. Do not yell; use a pleasant tone of voice that can be heard only at your table. Do not use profane, abusive or vulgar language.
- Be a good listener. Give others a chance to talk. Do not **monopolize** a conversation. Pay attention to the person speaking by giving eye contact; do not look at other people when someone is talking to you.
- Do not interrupt. Allow the other person to finish what he or she is saying before speaking. If you and another person start talking at the same time, give way quickly in a friendly manner with a simple, “*Go ahead, please.*”
- Do not ridicule or laugh at an unfortunate remark or someone’s mistake. Although a good conversationalist does not contradict someone in a social setting, it is okay to disagree. In those instances, start by saying, “*I disagree with you because....*”

### THE CADET AS A GUEST

When you are invited to attend a social event, which could be a short afternoon visit, a dinner party, or the annual Cadet Ball, you have certain obligations that you must observe as a guest.

## INVITATIONS

First, you must understand the invitation: what you are invited for, where it will be held, when you should be there, and what you should wear. A written invitation will usually spell out most of these things quite clearly. Certain things are implicit in an invitation, as you shall see.

### The R.S.V.P

R.S.V.P. comes from the French expression “*Repondez s’il vous plait*,” which means “*please reply*.” On many invitations, you will see the R.S.V.P. followed by a telephone number. In this case, the courtesy of a prompt reply by telephone is required to permit the host, hostess, or planning committee to properly plan the event. Call within two or three days to accept or decline the invitation. Make your call between 9 a.m. and 6 p.m. (**Note:** More on telephone courtesies is covered in the section on “*Other Courtesies*.”)

If your plans for that day are unsettled or indefinite, do not pass this problem on to the prospective host or hostess. It would be much better to outright decline the invitation than to give a complicated account of your indefinite social activities. Even if the other arrangement or engagement is tentative; it is best to decline the invitation. Once you have declined, however, do not call back if your plans change.

When declining, it is sufficient to say to the host or hostess that a conflicting duty or social engagement prevents you from accepting. You are at liberty to turn down an invitation because you do not wish to go; however, you should exercise good judgment on the invitations you refuse.

If, after you accepted an invitation, an illness or an absolute emergency prevents you from attending, call the host or hostess immediately with regrets and apologies.

You are not at liberty to invite someone else along unless the invitation clearly indicates the number and names of those invited.

There are several variations of the R.S.V.P. that are coming into widespread use, especially on informal invitations.

- “R.S.V.P. Regrets Only.” This invitation means that the prospective host or hostess is expecting you unless you notify otherwise that you cannot come. If you can accept, you need not reply, just be there on time.
- Invitations by phone. When accepting an invitation by phone, it is a good idea to repeat back all of the essential information so that there is no misunderstanding. If you must first check your calendar before answering, get all the details and explain that you will call back as soon as you have done so. Thank the caller for the invitation, make sure you have the phone number, and promise to call right back. Then, make sure you do.

### Where

Most written invitations will indicate exactly where the function is being held. Some invitations may include a small map for your convenience.

## When

Invitations to dinners, receptions, and weddings will usually give a time. For dinners and receptions, this is the time at which you should arrive, *no earlier and no later*. You will need to plan your timing so that you can be punctual. The time on a wedding invitation is the time the ceremony begins; therefore, you should allow sufficient time to be punctual.

If you are invited to an open house from 3 to 6 p.m., you may arrive any time after three and depart before six. You are not expected to stay the entire three hours. After a dinner party, you should stay at least an hour, otherwise it hints of “eat-and-run” rudeness.

## What to Wear

The invitation may specify what you should wear. For example, cadets would most likely wear their Class A uniform to the annual Cadet Ball. In this situation, male guests should wear a suit while female guests should wear either short or long evening attire.

Some invitations may simply indicate that the dress is formal, informal, or casual. Ensure that you understand what these terms mean. If you are in doubt, ask the host or hostess what to wear when you call to R.S.V.P. As a general rule, use the following guidelines:

- **Formal:** For gentlemen, a suit may be acceptable, although a tuxedo or uniform equivalent is preferred; for ladies, a short or long evening gown may be appropriate.
- **Informal:** For gentlemen, a sport coat and tie is appropriate; for ladies, a dress appropriate for day-time wear or a nice pants suit is acceptable.
- **Casual:** For gentleman, nice slacks and a sport shirt is appropriate; for ladies, a sundress or nice pants and blouse is appropriate. In some situations, jeans or shorts and a nice shirt or blouse may be acceptable.

### *COURTESIES WHEN A GUEST AT SMALLER FUNCTIONS*

When attending an open house or a small dinner party, seek out your host and/or hostess immediately upon arrival and greet them. A crowded room should not keep you from properly greeting your host and hostess. You should also delay getting any refreshments until after you have properly greeted them.

Since the host and hostess are in charge, let them run things. As a polite, unassuming guest, you should help by making conversation and joining wholeheartedly in whatever activities they have planned.

You should not sit when other guests are standing in your presence.

Prior to leaving, you must thank your host and hostess for a wonderful time. Even if there are still dozens of people present, you must seek them out to say thank you and good-bye.

### *THANK YOU NOTES*

Thank you notes should be written within two or three days, but no more than a week, after you have been a guest at someone’s home. A thank you note should be handwritten in ink on quality writing paper. Stationary sets that provide matching paper and envelopes are recommended. Be conservative in the choice of color and design. Plain white is always acceptable. Some of the requirements for a thank you note are:

- Spell out the month — the notation 3/9/99 is not used socially. Place the date in the upper right-hand corner just below the fold line on the informal notepaper.
- Ensure there are adequate margins on both sides of the paper — leave about one and one-fourth inch on the left side and about three-fourths inch on the right, depending on the size of the paper.
- Place the salutation, such as “*Dear Mrs. Elliott,*” at the left margin.
- Indent the first line of each paragraph; bring each subsequent line out to the left margin.
- Place the complimentary close approximately as far to the right as the date at the top of the page. “*Sincerely,*” or “*Sincerely yours,*” with your first and last names are acceptable complimentary closes. Do not use “*Yours truly,*” and reserve the use of “*Love,*” for a family member or close friend followed by your first name only.
- Do not use “Cadet” or your cadet rank in your signature.
- Your return address belongs on the envelope, not under your signature.

There should be a minimum of three paragraphs in the thank you note. The first expresses your thanks specifically and in detail for the occasion. The last briefly summarizes your thanks. There must be one or more paragraphs in the middle on any topic you choose about the occasion you attended. Do not invite yourself back in your thank you note.

When expressing yourself — be yourself! If you do not normally speak a **stilted** or flowery language, then do not sound that way in your note. Sincerity is far more important than eloquence. “*I was over-*

*whelmed by the sumptuousness of the **repast** in your exquisite domicile,*” is pretty silly from most people. “*I enjoyed the dinner in your attractive home,*” sounds much more natural. If you particularly enjoyed the soup, or if the chocolate cream pie was out of this world, by all means say so in your note.

Sincerity is the first rule in social correspondence. Simplicity is the second rule. You can hardly go wrong with a few simple and direct statements of the things that pleased or amused you. Write just as you would say it to someone you know very well. Also, use correct grammar and spelling and keep it neat.

The thank you note is an individual responsibility. If more than one of you enjoyed a dinner party at someone’s home, it is not proper to send one thank you note. Each of you should write your own note.

Follow the example shown below to address an envelope. Ensure that you use a block style; include the proper title with the name (such as Mr., Mrs., Miss, Ms., Dr., Colonel, etc.); and place the city, two-letter state abbreviation, and zip code on the same line.

Mrs. Leslie Elliott  
2001 Deerfield Street  
Parsons, NC 12345-0021

Place your return address on the front top left-hand corner of the envelope. You may use an address label for this purpose. You may also include “Cadet” in your title, but not your cadet rank: Cadet John C. Scott is acceptable, but Cadet Captain John C. Scott is not correct.

If you are on the planning committee for the Cadet Ball, you should also send thank you notes to the special guests, the

organizations that sponsored the event, and the organizations that provided services and entertainment.

## OTHER COURTESIES

### TELEPHONE COURTESIES

The telephone is a valuable time-saver and an effective means of communication. Here are some tips for proper telephone usage.

When calling a private residence to respond to an R.S.V.P., it is most proper to call between nine in the morning and six at night. Avoid calling during meal hours. If you are in doubt, ask the person you are calling if this is a convenient time — offer to call back later if necessary. Let the phone ring at least six times to allow the person to reach the phone.

Identify yourself when placing a call. Unlike talking to someone face-to-face, the person on the other end of the phone may not recognize your voice until you identify yourself. While talking on the phone:

- Be polite. This applies to any conversation.
- Speak slowly and clearly.
- Do not eat, drink, or chew gum.
- Do not sneeze or cough into the receiver. Turn your head or excuse yourself.
- Do not carry on a conversation with someone in the room while talking on the phone.
- Call back immediately if you get disconnected and you placed the call.
- When answering a call for someone else, say, “*May I ask who is calling?*” This sounds better than “*Who is this?*”

There is also proper etiquette to follow if you dial a wrong number. No matter how careful you are you may still dial a wrong number. When that happens, apologize to the person who answers. That person is not interested in hearing a story about how you mis-dialed, just tell him or her “*I’m very sorry to have disturbed you,*” hang up, ensure you have the correct number, and then try again. It is inexcusably rude to hang up without an apology.

When leaving a message on an answering machine, clearly state your name, the date and time of your call, and a brief message. Leave a phone number only if you need to be called back.

### CELLULAR PHONE COURTESIES

Because “wireless phones” can be used virtually anywhere, their users need to remember common-sense courtesy. Results from a nationwide survey indicates that wireless users need to improve their phone etiquette and put people ahead of phone calls. A few tips to follow are:

- Use of wireless phones is prohibited in most schools and at school functions.
- Use of wireless phones during social gatherings is not appropriate.
- Do not place a cell phone on the table during a meal.
- Do not drive and use a cell phone.
- Do not use a wireless phone when it will inconvenience or disrupt others.
- Use should be limited in public places or gatherings to safety or emergency reasons.

### HELPING OTHERS

If an older woman or an invalid gentleman wants some support, it is appropriate for you to offer your arm. The cadet does not offer his or her hand. Hand holding in public is not appropriate and is considered a public

display of affection, which is improper when in uniform. A cadet may offer his or her hand only when it is not practical to offer the arm, for example, to help an elderly lady or gentleman out of a car. Offer your hand palm up, and do not force it upon the person to whom you are offering it. Then, withdraw your hand as soon as it is no longer needed.

When walking with a lady, a gentleman may walk on the curbside, or on her left if there is no curb.

If a gentleman arrives at a door first, he should open it and allow others to pass through. If a lady arrives at the door first and opens it, the gentleman may hold the door for her to continue.

If you are driving or riding to the social in a privately owned vehicle, open the car door for your passenger first on the right side of the car, then go around it and take your seat, either behind the wheel or in the back seat beside your guest. When you reach your destination, walk around the car and open the door for your guest if he or she has not already exited the vehicle.

### *BEING RESPONSIBLE FOR YOUR GUEST*

Depending upon the nature of the social occasion, cadets should inform their guests about the traditions and courtesies of it before arriving. Using the Cadet Ball as an example, cadets should inform their guests about appropriate dress, conduct, the receiving line, traditions of the mess, and so on. Remember, if you invite a guest, you are responsible for your guest's behavior. If you have duties to perform after you arrive at the social, arrange for someone else to act as an escort for your guest until you are free. Introduce your friends and ensure that your guest's time is fulfilled.

### *RESPECT TO SENIORS*

By this time in JROTC, you should not have any difficulty in showing respect to military seniors; in fact, it should be automatic.

You should also show respect for elders, as well as parents, teachers, and others in a position of authority. In short, you should treat all persons with whom you have contact with the utmost respect.

Since it is militarily incorrect to use slang or poor grammar like “yeah,” “nope,” or “un-huh” to a JROTC instructor, it is also socially rude to say these things to others.

You may also encounter situations when seniors address you by your first name. While this may be flattering, under no circumstances should you address a senior by his or her first name, unless that person specifically asks you to do so.

### *GROOMING*

Nothing less than scrupulous attention to all aspects of personal hygiene will make you socially acceptable. Be certain that you are well groomed every time you make an appearance socially. One dirty or untrimmed fingernail may seem like a small thing to you, but it may be the basis for a negative impression. You will not have a second chance to make a first impression. Below are just a few of the basics you should already be doing to ensure your appearance is up to standards.

- Ensure your hair is clean, neatly trimmed or styled, and combed at all times.
- Shower daily and use a deodorant as part of your daily routine.
- Brush your teeth after meals and floss daily.

- For young men who already have to shave, if it is necessary for you to do so once or twice a day to be presentable, then do so.

Good grooming is an individual responsibility. It should not be necessary for an instructor or a senior cadet to tell you to maintain proper personal hygiene. Additionally, for cadets, ensure that your uniform is clean, pressed, and presentable.

### *OTHER EVERYDAY COURTESIES*

Use “Please,” “Thank you,” “You’re welcome,” “Excuse me,” and “I’m sorry” naturally and sincerely in conversations. Say, “Excuse me” if you accidentally brush against someone. You should say, “Excuse me” or “I beg your pardon” but do not use the phrase “Pardon me.”

You may chew gum in public as long as you do it in a non-offensive way — quietly and inconspicuously. Do not chew gum in formal situations, at work, if you are a host or hostess, or if you are around food.

In public places, do not make a lot of noise with friends that might upset other people.

Do not push ahead of anyone. Wait your turn in line to go through a door, into an elevator, or onto an escalator.

### **PLANNING A CADET BALL**

A major prerequisite for ensuring that the Cadet Ball (and for that matter, any social occasion) is successful is careful planning. The first important act is the appointment of a Cadet Ball chairperson by the Senior Army Instructor. This chairperson should have authority to make many of the required planning decisions, although some of these

decisions may be subject to the approval of the Senior Army Instructor.

One of the first duties of the cadet chairperson should be to review the reports on file for previous Cadet Balls. These reports will acquaint the chairperson with his or her responsibilities, which include (*this list is not all inclusive*):

- Establishing committees, appointing committee leaders, and providing them with the necessary people and other resources. He or she is also responsible for supervising these committees. At a minimum, the chairperson should establish committees for:
  - Advertising
  - Decorating
  - Entertainment
  - Food
  - Fund-raising
  - Invitations, including the special guests
  - Program and Seating Arrangements
- Establishing short and long-term goals, identifying the tasks necessary for the achievement of these goals, and delegating the tasks to committees for execution.
- Identifying problem areas and lessons learned from previous Cadet Balls, and preventing them from reoccurring.

The chairperson and all committee leaders should think through all of the details thoroughly, and develop a plan to get everything done. You should be sure to establish

alternative (or back-up) plans where necessary. This way you can be sure of avoiding last minute embarrassment

Send out invitations as early as possible. Then, if some guests do not accept, you still have time to invite others without offending them with a last minute invitation. Ensure that the invitation clearly states the location, time, and dress requirements. Let your guests know exactly what is being planned and what is expected of them.

A few helpful planning tips are:

- Ensure that all arrangements are carefully made for the special guests.
- Select a band that plays an arrangement of music as well as music that does not offend anyone.
- Arrange to have a photographer.
- Arrange to have several nice door prizes if you can find sponsors to donate them.
- Give credit in the program to all sponsors as well as to individuals and organizations that assisted in putting the Cadet Ball together.
- Rehearse the Color Guard, the sequence of events, and any special activities at the designated location at least one day prior to the actual event.
- Coordinate with the designated location to ensure they prepare the correct number of meals, have the correct number of chairs and tables, and that seating is in accordance with the seating chart.

## HISTORY OF MILITARY DINING-INS

You should be familiar with the terms “dining-in” and “dining-out.” These terms refer to formal dinners, which are intended for military members only (dining-in) or to which

guests are invited (dining-out). The **protocol** for these affairs often reflects long-standing traditions within a regiment or corps of the armed forces.

Dining-in has its roots in Europe and may extend all the way back to the Roman practice of holding great banquets to celebrate victory and parade the spoils of war. The customs and traditions of our contemporary dining-in come from those of the British Army Regimental Mess. The British mess provided a time for satire, solemn formality, horseplay, an excuse for living beyond one’s means, and was an occasion to observe long-standing customs and traditions of the regiment. The first recorded American dining-in occurred in September 1716 when Governor Spotswood of Virginia, along with a company of Rangers, celebrated after crossing the mountains and descending into the Shenandoah Valley.

Even today, there is still ample reason to observe the dining-in tradition. The intent of the dining-in is to promote **cordiality**, **comradeship**, and esprit de corps. In addition, it is hoped that participation in this worthy tradition will stimulate enthusiasm to prevent it from dying out.

The dining-in is an excellent vehicle to remind us of the nature of our service and the traditional courtesies and amenities appropriate to the military. The primary elements are a formal setting, posting of the Colors, invocation, traditional toasts (may be at the conclusion of dinner), a fine dinner, comradeship of the members of the command, benediction, retirement of the Colors, and **martial** music.

## TOASTING

The custom of toasting is universal. It is a simple courtesy to the person being

honored. It is not proper to drain the glass at the completion of each toast. Therefore, know how many toasts are being given so that you will know how much to drink with each toast. It is also not proper to raise an empty glass to make a toast. Toasts are made standing up. One person will present the toast by saying either, “*Ladies and Gentlemen, the President of the United States*” or “*Ladies and Gentlemen, I propose a toast to the President of the United States.*” Then, all will raise their glasses and say “*The President*” or “*To the President,*” respectively.

On the presentation and retirement of the Colors, face toward the Colors at attention until the ceremony is completed. Then, remain standing for the toasts and the invocation at the beginning of the program. You are expected to rise again for the benediction at the end of the program.

## CONCLUSION

Learning proper social conduct is an important part of your growth and character development. Although there are many forms of etiquette that pertain to almost every social occasion that you will encounter in life, the intent of this lesson was to familiarize you with proper manners and etiquette for the single most important social event in JROTC — the Cadet Ball.

## GLOSSARY

### A

**acceptable.** Capable or worthy of being accepted, adequate, satisfactory.

**active.** Characterized by action rather than by contemplation or speculation.

**active duty.** A condition of military service where members are on full duty, or subject to call, at all times in order to respond quickly to the nation's emergencies.

**active listening.** To go beyond comprehending literally to an empathetic understanding of the speaker.

**adaptability.** Capability or willingness to adapt.

**admissions.** The act or process of admitting.

**advancement.** (1) A promotion or elevation to a higher rank or position. (2) Progression to a higher stage of development.

**advocacy service.** The act or process of supporting or providing a service towards a cause or proposal that does not require face-to-face contact.

**after action review.** Reflecting on what was learned after an act.

**agenda.** A list or program of things to be done or considered

**aggression.** An unprovoked attack or invasion.

**allocate.** To apportion for a specific purpose or to particular persons or things.

**analogy.** Resemblance in some particulars between things otherwise unlike

**Analogy/Simile Chart.** A graphic organizer used to illustrate the thinking and organizing process that involves comparing one thing to another thing that initially seems unrelated. The benefit of the process comes from having to explore the connections and the critical elements.

**analysis.** (1) The separation of a whole into its component parts for individual study; (2) A study of something complex, its elements, and their relations.

**anger-management.** Employing steps to control feelings of anger or rage.

**antonym.** A word of opposite meaning (the usual antonym of good is bad.)

**apologize.** To make an apology or express a regret for a wrong.

**apply.** (1) To put to use especially for some practical purpose; (2) To employ diligently or with close attention; (3) To have relevance or a valid connection.

**appositive.** A grammatical construction in which two usually adjacent nouns having the same referent stand in the same syntactical relation to the rest of a sentence (as the poet and Burns in "a biography of the poet Burns").

**aptitude tests.** A standardized test designed to predict an individual's ability to learn certain skills.

**arbitration.** To submit for decision to a third party who is chosen to settle differences in a controversy.

**Armed Services Vocational Aptitude Battery (ASVAB).** A multi-aptitude test consisting of 10 short individual tests. Its

results can help to identify different educational and career abilities and to compare test performance to that of other students at the same grade level. It yields composite scores in three academic areas: verbal, math, and academic ability.

**articulate.** To speak clearly and effectively.

**ascendant.** Dominant in position or influence; superior.

**assertion.** The act of asserting; to state or declare positively and often forcefully or aggressively.

**assessment.** The act of evaluating or appraising a person's ability or potential to meet certain standards or criteria. (**Note:** Self-assessment is when a person evaluates or appraises his or her own ability or potential to meet a certain standard or criteria.)

**associate.** To group things together when they have common characteristics.

**attitude.** (1) A mental position with regard to a fact or state. (2) A feeling or emotion toward a fact or state.

**audience analysis.** The examination of the characteristics that describe the receivers of communication, to include categories such as age, background, education, political opinions, location, etc.

**aural or auditory.** (1): of or relating to the ear or to the sense of hearing (2): of, relating to, or experienced through hearing.

**authoritarian.** Characterized by or favoring absolute obedience to authority, as against individual freedom

**autobiography.** The biography of a person written by that person.

**axon.** Long fibers that send electrical impulses and release neurotransmitters.

## B

**barrier.** An obstruction; anything that holds apart or separates.

**bibliography.** A list of sources of information in print (books or other publications) on a specific subject; the description and identification of the editions, dates of issue, authorship, and typography of books or other written material.

**bi-lateral.** Of, relating to, or affecting the right and left sides of the body or the right and left members of paired organs; having bilateral symmetry.

**bi-lateral transfer.** The ability of the brain to transmit data processed in one hemisphere and coordinate and integrate it with data processed in other areas.

**body.** The main part of a paper, lesson plan, or speech.

**bodily/kinesthetic intelligence.** The gift of physical prowess, coordination, fitness, and action.

**brain stem.** The oldest part of the brain composed of the mesencephalon, pons, and medulla oblongata and connecting the spinal cord with the forebrain and cerebrum. Also referred to as the reptilian brain.

**brainstorming.** A teaching method that consists a group problem-solving technique that involves the spontaneous contribution of ideas from all members of the group.

**Bridging Snapshots.** See **Sequence Chart**

## C

**career.** An occupation or profession; the course or progress of a person's life.

**case study.** A teaching method that consists of an oral or written account of a real or realistic situation, with sufficient detail to make it possible for the learners to analyze the problems involved and determine possible solutions.

**cerebral hemispheres.** When looked at from the top, the brain is composed of two interconnected spheres or lobes and is the seat of higher-level thinking.

**change orientation.** A scale that indicates the degree of motivation and readiness for change in the skills measured by The Personal Skills Map.

**channel.** In communications theory, a gesture, action, sound, written or spoken word, or visual image used in transmitting information.

**clarify.** (1) To free of confusion (2) to make understandable.

**classify.** To assign to a category.

**cluster.** A number of similar things growing together or of things or individuals collected or grouped closely together.

**coach-pupil exercises.** A practical exercise format where learners work in pairs or small groups, alternately performing as instructor and student.

**cognition.** The mental process of knowing.

**college.** (1) An independent institution of higher learning offering a course of general studies leading to a bachelor's degree. (2) A part of a university offering a specialized

group of courses. (3) An institution offering instruction usually in a professional, vocational, or technical field.

**commemorative.** Honoring the memory of; speaking in honor of.

**commissary.** A supermarket for use by military personnel and their dependents located on a military installation.

**community service.** Any form of service provided for the community or common good.

**compare.** A test directive that requires that you examine qualities or characteristics to discover resemblances. "Compare" is usually stated as "compare with." You are to emphasize similarities, although differences may be mentioned.

**complementary.** Supplying mutual needs of offsetting mutual lacks.

**comprehension.** The act or action of grasping with the intellect

**comprehensive.** Covering completely or broadly.

**compromise.** A settlement of differences reached by mutual concessions.

**comradeship.** Companionship.

**concept:** An abstract or generic idea generalized from particular instances.

**Concept Web.** The center circle of this graphic organizer represents the main concept or idea. The smaller circles connecting to the main concept represent the sub concepts; connected to these sub concepts are sub-sub concepts. For example, the center circle could be citizenship. The smaller connected circles are sub concepts related to citizenship. These

smaller circles can also be explored for additional supporting concepts.

**conclusion.** The final part of a paper, speech, or lesson plan (also referred to as a summary); a final opinion reached through research and reasoning.

**condition.** The second part of a learning objective that describes clearly and completely the circumstances under which a student or class must perform a task.

**conference.** A teaching method (or method of instruction) where the instructor involves the entire class in a discussion of the subject being taught by asking leading questions to get the students to think about and discuss the main points.

**conflict.** A clash between hostile or opposing elements, ideas, or forces. To show opposition.

**constructive.** Promoting improvement or development.

**constructive criticism.** Feedback that is helpful and productive.

**context.** That which surrounds a particular word and determines its meaning.

**contrast.** A test directive that stresses dissimilarities, differences, or unlikeness of things, qualities, events, or problems.

**conviction.** A strong persuasion or belief .

**cooperative learning strategy.** A teaching strategy in which teams of students work with and depend upon each other towards a common goal.

**coping strategy.** Technique for dealing with a difficult situation.

**cordiality.** Sincere affection and kindness.

**corpus callosum.** The bundle of fibers (axons) connecting the two sides of the brain; white matter.

**cortex.** The highly wrinkled outer layer of the cerebrum and cerebellum (forebrain); gray matter.

**counterpart.** Something that is similar or comparable to another, as in function or relation.

**creative.** Marked by the ability or power to create : given to creating.

**criteria.** A standard on which a judgment or decision may be based.

**criteria filter.** A standard, rule, or test on which a judgment or decision can be based. There may be some fixed set of criteria that the alternatives must meet. For example, if you were choosing a car, there may be a maximum amount that you can spend.

**critical.** Of, relating to, or being a turning point or specially important juncture.

**criticize.** A test directive that requires that you express your judgment on correctness or merit. Discuss the limitations and good points or contributions of the plan or work in question.

**curt (ly).** Rudely brief or abrupt, as in speech or manner.

## D

**data.** Factual information, especially information organized for analysis or used to reason or make decisions.

**debrief**. One who encourages team members and leads discussion after presentation and team reflection.

**deference**. The respect and esteem due a superior or an elder; also affected or ingratiating regard for another's wishes.

**dendrite**. Any of the usually branching protoplasmic processes that conduct impulses toward the body of a nerve cell.

**differentiate**. To make a distinction or state a difference between things so we can tell them apart.

**dining-in**. A Formal military dinner for military members only.

**dining-out**. A Formal military dinner to which guests are invited.

**direct service**. Involves face-to-face contact with those being served in either project or placement models of service learning.

**discussion**. A teaching method (or method of instruction) where the instructor involves the entire class in a discussion of the subject being taught by asking leading questions to get the students to think about and discuss the main points.

**distance education**. Learning that takes place via electronic media linking instructors and students who are not together in a classroom.

**distortion**. Twisted out of true meaning; reproduced improperly.

**dominant**. Exercising the most influence or control.

**dramatic statement**. A phrase or sentence meant to capture the attention of the audience.

**dysfunctional roles**. Roles assumed by individuals within a group, which are destructive and block group communication.

## E

**effective speaking**. Expressing your needs feelings and reasons.

**efficient**. Productive of desired effects; especially: productive without waste.

**emotional intelligence**. A learned ability to identify, experience, understand, and express human emotions in healthy and productive ways.

**empathetic**. [Also empathic.] Of, pertaining to, or characterized by empathy (an understanding so intimate that the feelings, thoughts, and motives of one are readily comprehended by another).

**empathy**. The capacity to experience the feelings of another as one's own.

**employee**. One employed by another usually for wages or salary.

**employment application**. A form used in making a request to be considered for a job position.

**Energizer**. Someone or something that increases the capacity of acting or being active.

**enlistment**. To engage (a person) for duty in the armed forces.

**entice**. To attract or lure. To encourage someone to participate.

**entrepreneur**. One who organizes, manages, and assumes the risks of a business enterprise.

**enumerate.** This test directive that specifies a list or outline form of reply. In such questions, recount one by one the points required.

**etiquette.** Any special code of behavior or courtesy based on rules of a polite society or rules governing professional conduct.

**exchange.** A store at a military installation that sells merchandise and services to military personnel and authorized civilians

**experiential learning.** Gaining practical knowledge, skills, or practice from direct observation of or participation in events or in a particular activity.

**exploratory project.** A teacher-planned introductory project to service learning, intended to provide students with a meaningful experience, expose them to how it feels to serve, and to stimulate their thinking about possible service learning activities.

**eye contact.** Looking someone directly in the eyes.

## F

**facilitate.** To make easier, aid, or assist.

**facilitator.** (1) One who facilitates; (2) One who leads team discussion.

**feedback.** (1) The return or a response to information, as in the evaluation of a communication. (2) The return of evaluative or corrective information to the sender (point of origin).

**field education.** Performing service and training to enhance understanding within a field of study.

**filter.** A person who alters information or a method of altering information as it is being passed from one person to another.

**financial aid.** A grant or subsidy to a school or individual for an educational or artistic project.

**Fishbone.** This structure of this graphic organizer explores the important components of a problem to solve, an issue to explore, or a project to plan. The head of the fish represents a problem, issue, or project. "Ribs" of the fish represent component parts of the problem and the related elements of each part.

**flexible.** Characterized by a ready capability to adapt to new, different, or changing requirements.

**Focus.** A center of activity, attraction, or attention; a point of concentration; directed attention.

**frustration.** Feelings of insecurity, discouragement, or dissatisfaction.

## G

**gaming.** A teaching method that consists activities where participants compete to try to achieve or exceed a certain standard in performing a skill relevant to the learning objectives of the lesson.

**Gather.** (1) To bring together; (2) To pick up or accumulate; (3) To assemble.

**generalize.** (1): to derive or induce (a general conception or principle) from particulars (2): to draw a general conclusion from.

**global.** Involving the entire earth; comprehensive, total.

**goal.** An aim or purpose; an end to which effort is directed.

**goal setting.** Planning done to reach a desired goal.

**grapevine.** An informal, often secret means of transmitting information, gossip, or rumor (that is usually incomplete or does not make sense) from one person to another within an organization or institution.

**graphic organizer (GO).** A tool for learning the structure of thinking skills. A graphic organizer provides a visual picture of information and allows the mind “to see” patterns and relationships.

**group performance.** A controlled practical exercise where learners work together at a fixed rate.

**groupthink.** The situation where a group does not consider all available alternatives due to the desire to reach consensus.

## H

**harassment.** The act of annoying continually

**headhunter.** A recruiter of personnel especially at the executive level.

**hearing.** To perceive by the ear; to listen attentively.

**hemisphere.** Half of a symmetrical shape.

**hostility.** An unfriendly state or action.

**Human Resources.** A division of an organization concerned with personnel.

**hypothesis.** (1) An assumption or concession made for the sake of argument. (2) An

interpretation of a practical situation or condition taken as the ground for action.

## I

**idleness.** Passing time without working or while avoiding work.

**impromptu.** Without planning or rehearsal.

**independent exercises.** A practical exercise format where learners work alone at their own pace.

**indirect service.** Hands-on involvement in a service activity without any face-to-face contact with those served.

**inference.** A test directive, when asked to infer, you are required to make a determination of a given problem based on the proposition, statement, or judgment considered as true within another problem.

**information cards.** Cards used to collect data for a report or paper. Sometimes 3”x5.”

**Inquire.** (1) To ask about; to search into; (2) To put a question, seek for information by questioning.

**integration.** The act or process or an instance of forming, coordinating, or blending into a functioning or unified whole.

**intelligence.** The capacity to acquire and apply knowledge; The faculty of thought and reason

**internship.** An advanced student or graduate usually in a professional field (as medicine or teaching) gaining supervised practical experience (as in a hospital or classroom).

**interpersonal.** Existing or occurring between individuals

**interpersonal intelligence.** The gift of working with people and understanding the complexities of human relationships.

**interpret.** A test directive; you are expected to translate, solve, or comment upon the subject and usually to give your judgment or reaction to the problem.

**interview.** A formal face-to-face meeting, especially one conducted for the assessment of an applicant.

**intrapersonal.** Occurring within the individual mind or self.

**intrapersonal intelligence.** The gift of inner thought, self-awareness, and self-reflection.

**introduction.** The beginning of a paper, speech, or lesson plan.

**introspection.** Self-examination; contemplation of one's own thoughts or feelings.

**intuition.** Instinctive knowledge or perception without conscious reasoning or reference to a rational process; sharp insight.

**inventory.** (1) An itemized list of current assets: as a. a catalog of the property of an individual or estate b. a list of goods on hand; (2) A survey of natural resources; (3) a list of traits, preferences, attitudes, interests, or abilities used to evaluate personal characteristics or skills.

## J

**jargon.** A technical terminology or language created for a particular profession, such as computer science, that may seem strange or outlandish to outsiders who do not understand it.

**job posting.** A published notice of a job vacancy.

**job.** A position of work or employment that is performed regularly in exchange for payment; a task or undertaking; a specific activity or piece of work.

**justify.** A test directive where you are instructed to justify your answer, you must prove or show your grounds for decisions. In such an answer, present evidence in convincing form.

## K

**KDL.** The specific labels for each column in this three-column graphic organizer are, "What do you KNOW?" "What do you DO?" and "What have you LEARNED?" You can use this graphic organizer to connect knowledge and behavior.

**KWL.** The specific labels for each column in this three-column graphic organizer are "What do you KNOW?" "What do you WANT to know?" and "What have you LEARNED?" This is useful when cadets are faced with new or difficult information.

**kinesthetic.** A sensory experience derived from a sense that perceives bodily movement.

## L

**lecture.** A teaching method (or method of instruction) designed to provide instruction on a task that a class knows very little about and to prepare students for practicing the task; the teacher does most of the talking and questions and answers usually occur at the end of the period.

**lesson plan.** A written document that is an instructional outline of a lesson (or a period of instruction) that teachers use as a guide to

facilitate student learning; it standardizes instructor presentation of the curriculum and gives teaching strategies.

**limbic system.** A group of subcortical structures (as the hypothalamus, the hippocampus, and the amygdala) of the brain that are concerned especially with emotion and motivation.

**listening.** Making an effort to hear something; paying attention.

**local.** A particular place.

**logical/mathematical intelligence.** The gift of reasoning and thinking in symbols and abstractions.

**long-term goal.** A life goal; a goal that requires lots of time and planning to accomplish.

**Looks-Sounds-Feels.** This graphic organizer allows you to compare appearances, auditory expressions, and tactile characteristics of an element.

## M

**manners.** The socially correct way of acting. The prevailing customs, social conduct, and norms of a specific society, period, or group.

**martial.** Of or relating to an army or military life.

**Matrix.** This graphic organizer identifies relationships and component pieces of an issue or data point. Intersecting horizontal and vertical lines create a grid used to classify and categorize related elements.

**measurable.** To regulate or access by a specified criterion.

**mediation.** Working with opposing sides in order to resolve a dispute or bring about a settlement.

**mentor.** A trusted counselor or guide.

**mid-term goal.** An intermediate goal; sometimes a step to a long-term goal.

**Mind Map.** This graphic organizer uses a free-flowing documentation process where lines connect concepts to each other. The core subject is in the center; the main spokes are like sub parts of chapters. Use to organize thoughts either of an individual or of a group, for preparing lesson plans, writing a book, planning a project, or giving a speech.

**miscommunication.** Failure to communicate clearly.

**mistakes.** Errors.

**mixed messages.** Communication transmitted by words, signals, or other means from one person, station, or group to another with unclear meaning to the receiver.

**modify.** To make basic or fundamental changes in often to give a new orientation to or to serve a new end.

**modulation.** To change or vary the pitch, intensity, or tone.

**monopolize.** To take exclusive ownership or control.

**mood.** A conscious state of mind or predominant emotion.

**motivation.** Something that causes a person to act.

**musical/rhythmical intelligence.** The gift of melody, music, rhyme, rhythm, and sound.

## N

**natural.** (1) Based on an inherent sense of right and wrong; (2) Occurring in conformity with the ordinary course of nature, not marvelous or supernatural; (3) Formulated by human reason alone rather than revelation; (4) Having a normal or usual character.

**naturalist intelligence.** Environmental awareness.

**negotiation.** Discussion or conference that is aimed at bringing about a settlement.

**networking.** Meeting people and making contacts; the exchange of information or services among individuals, groups, or institutions.

**neural plasticity.** Concerns the property of neural circuitry to potentially acquire (given appropriate training) nearly any function.

**neurons.** A grayish or reddish granular cell with specialized processes that is the fundamental functional unit of nervous tissue in the brain.

**neurotransmitter.** A chemical molecule (as norepinephrine or acetylcholine) that transmits nerve impulses across a synapse, within and between brain cells.

**noise.** 1) That which interferes with the successful completion of communication. 2) A disturbance, especially a random and persistent disturbance, that obscures or reduces the clarity of communication.

**nonverbal.** Being other than verbal; not involving words: *nonverbal communication*.

## O

**objective.** A statement that specifies what skills, knowledge, and/or attitudes a class, group of students, or individual should be able to do following training; it consists of a task, condition, and standard and describes the minimum acceptable level of performance.

**objectivity.** Expressing or dealing with facts or conditions as perceived without distortion by personal feelings, prejudices, or interpretations.

**observation.** (1) An act or instance of examining a custom, rule, or law; (2); An act of recognizing and noting a fact or occurrence often involving measurement with instruments; (3) A record or description so obtained.

**occupation.** The principal business of one's life.

**orientation.** The act or process of orienting or of being oriented, for example, being oriented on the first day of college.

## P

**pace.** (1) The rate of speed at which an activity proceeds; (2) Rate of performance or delivery.

**palate.** The roof of the mouth separating the mouth from the nasal cavity; the sense of taste.

**parable.** A comparison, usually a short fictitious story that illustrates a moral attitude or a religious principle.

**paraphrase.** A restatement of a text, passage, or work giving the meaning in another form.

**passive.** (1): acted upon by an external agency (2): receptive to outside impressions or influences.

**perception.** Awareness of one's environment through physical sensation. Ability to understand.

**persistence.** The action or fact of persisting, to go on resolutely or stubbornly in spite of opposition, importunity, or warning; to remain unchanged or fixed in a specified character, condition, or position; the quality or state of being persistent.

**persuasive.** Having the power to persuade; to cause to do something especially by reasoning, urging, etc.; convincing.

**Pie Chart.** Each segment of a circle in this graphic organizer represents a percentage or actual number of data points.

**place card.** A name card for a formal dinner; it is made of a heavy, plain white, card-stock paper about 2 inches high and 3 inches long; contains a person's title or rank and surname; and is handwritten in black or dark blue ink.

**placement.** Service learning activities carried out beyond the classroom in a preexisting, structured situation.

**plagiarism.** The act of copying the ideas or words of another and claiming them as one's own.

**PMI.** You can use this graphic organizer to evaluate the pluses and the minuses of a concept or idea and what is interesting about the concept.

**portfolio.** A document that contains a student's achievements over time and provides an in-depth picture of the student's skills and competencies; a means to reflect important

areas of life development and the value of education on future lifestyle and career choices.

**practical exercises.** A maneuver, operation, or drill carried out for training and discipline. The exercise tasks that learners perform should be as close as possible to those they will be expected to perform on their assessment or evaluation.

**preconceived.** To form (as an opinion) prior to actual knowledge or experience.

**predict.** To declare or indicate in advance; especially: foretell on the basis of observation, experience, or scientific reason.

**prediction.** Something that is foretold on the basis of observation, experience, or scientific reason.

**preference.** (1) The act of preferring, the state of being preferred; (2) The power or opportunity of choosing.

**prerequisite.** (1) Something that is necessary to an end or to the carrying out of a function; (2) Required or necessary as a prior condition.

**priority.** Something given or meriting attention before competing alternatives.

**problem-based learning.** An instructional strategy that promotes active learning where problems form the focus and learning stimulus and problem-solving skills are utilized.

**process.** (1) A natural phenomenon marked by gradual changes that lead toward a particular result; (2) A series of actions or operations conducting to an end.

**procrastination.** The act of putting off something that needs to be done.

**profession.** (1) A calling requiring specialized knowledge and often long and intensive academic preparation. (2) A principal calling, vocation, or employment

**project.** A task or problem engaged in usually by a group of students to supplement and apply classroom studies. Service learning projects are initiated and planned by cadets with instructor guidance.

**promotion.** The act or fact of being raised in position or rank.

**properties.** A quality or trait belonging and especially peculiar to an individual or thing.

**protocol.** A code of precedence in rank and status and of correct procedure in ceremonies; a form of etiquette observed in ceremonies; it is a combination of good manners and common sense which allows for effective communication.

**prove.** A test directive with questions that require proof or ones that demand confirmation or verification. Establish something with certainty by evaluating and citing evidence or by logical reasoning.

**purpose.** Something set up as an object or end to be attained

## Q

**qualifications.** A quality or skill that fits a person (as for an office).

**qualitative.** A standard that cannot be measured with numbers unless a rating system is used, otherwise, it requires a judgment to be made by an evaluator.

**quantitative.** A standard that allows performance to be measured with numbers.

## R

**Ranking Ladder.** The rungs on the ladder of this graphic organizer can represent priority or precedence such as steps in a process, hierarchy or position of components, relative importance of each data point, or status of individuals.

**rapport.** A relationship, especially one of mutual trust.

**receiver.** One or more individuals for whom a message is intended.

**receiving line.** A group of people, including the host and honored guests, who stand in a line and individually welcome guests attending the function, as at a formal reception.

**recorder.** One who takes notes for the team and organizes information.

**recruiter.** A member of the armed services who enlists new members into the armed forces.

**reflection.** (1) A thought, idea, or opinion formed or a remark made as a result of meditation; (2) Consideration of some subject matter, idea, or purpose.

**registration.** The act of registering.

**reinforce.** To strengthen by additional assistance, material, or support.

**relationships.** A particular type of connection existing between people related to or having dealings with each other.

**repast.** A supply of food and drink served as a meal.

**reporter.** One who represents the team voice and reports team findings.

**Reserves.** (1) A military force withheld from action for later decisive use. (2) Forces not in the field but available. (3) the military forces of a country not part of the regular services.

**resolution.** The process or capability of making distinguishable the individual parts of an object, closely adjacent optical images, or sources of light (such as the sharpness or clarity of a picture).

**resume.** A short account of one's career and qualifications prepared typically by an applicant for a position.

**Right Angle.** You can use this graphic organizer to identify facts along the horizontal line and associate thoughts and feelings about the facts below the vertical line. This is most useful to help connect feelings to facts and reflect on how feelings might be altered based on the facts.

**role-play.** A practical exercise format where learners are given different roles to play in a situation, and they apply the concepts being taught while acting out realistic behavior.

**routinization.** A process or decision that you have routinely used in the past, which helps you in current situations because you have established a pattern.

## S

**schema.** A pattern imposed on complex reality or experience to assist in explaining it, mediate perception, or guide response.

**scholarships.** Grants-in-aid to a student (as by a college or foundation.)

**sender.** The originator of a message.

**sensory.** Of or relating to an awareness or a mental process due to a stimulation of a sense organ

**sensory flooding.** Sensory overload, this happens when too much data is getting through to the brain.

**sensory gating.** Also called the neuron spike point, regulates the transmission of stimuli to the brain.

**Sequence/Bridging Snapshots.** The connected boxes of this graphic organizer show the progression, series, or succession of information. It is doesn't focus on the priority or importance of information, rather it shows connections in the form of a timetable, cycle, or chain of events.

**service learning.** An environment where one can learn and develop by actively participating in organized service experiences within one's community.

**setting.** 1) The context and environment in which a situation is set; the background. 2) The time, place, and circumstances in which a narrative, drama, or film takes place.

**short-term goal.** A goal that one can accomplish in a short period of time, often-times without much planning or effort.

**silence.** Absence of sound.

**skills analysis.** (1) A systematic attempt to identify the ability to use one's knowledge effectively and readily in execution or performance. (2) Analysis of one's dexterity or coordination especially in the execution of learned physical tasks.

**social roles.** Roles that individuals assume during the group communication process, which help maintain the group.

**sociological.** Pertaining to the science of society, social institutions and social relationships

**solution(s).** An action or process of solving a problem.

**sorbet.** A fruit-flavored ice served for dessert or between courses as a palate refresher.

**source card.** A card (usually 3" x 5") that is used to record the title, author, publisher, copyright date, and place of publication (city and state) of resources being used during research for a project (paper, speech, etc.).

**specialize.** To become adapted to a specific function.

**stag.** Unaccompanied by someone of the opposite sex. (Traditionally: A man who attends a social affair without escorting a woman.)

**standard.** The third part of a learning objective that states how well a class, group of students, or individual should perform a task.

**stilted.** Stiffly or artificially dignified or formal; pompous; lofty.

**strategy** (plur. **-ies**). (1) The art of carefully devising or employing a plan of action or method designed to achieve a goal; (2) The art or science of planning and directing large-scale military operations and campaigns.

**subjective.** 1: of, relating to, or constituting a subject: as a obsolete: of, relating to, or characteristic of one that is a subject especially in lack of freedom of action or in submissiveness.

**success.** The achievement of some thing attempted

**Sunshine Wheel.** The center circle in this graphic organizer represents the main idea and the lines extending out from the center circle represent the thoughts generated about the main idea.

**supplemental.** Of or relating to the addition of a section to a document to give further information.

**surname.** A person's family name as distinguished from a given name.

**survey.** To view or consider comprehensively.

**synapse.** The space between nerve cells; the point at which a nervous impulse passes from one neuron to another.

**synchronize.** To happen at the same time; coincide.

**synonym.** One of two or more words or expressions of the same language that have the same or nearly the same meaning in some or all senses.

**synthesis.** The combining of separate parts to form a coherent whole, as for a concentrated study of it.

## T

**tactile.** Of or relating to, or perceptible through the sense of touch.

**task.** (1) A job that must be done, often within a certain time, which can be assigned by one person to another or to a group, or as part of one's duties; (2) A difficult or tedious undertaking. (3) The first part of a learning objective that states the action (by beginning with an action verb) that a class, group of students, or individual should perform.

**task roles.** Roles assumed during the group communication process, which help the group accomplish a specific task.

**T-Chart.** The possible headings for this two-column graphic organizer are limitless. Some suggested headings are "Before and After", "Pros and Cons", "Cause and Effect," or "Issue and Solution."

**team practical exercises.** A practical exercise format where learners work together as a team to perform the desired tasks.

**Team-building exercise.** Strategies that can be employed to help foster team dynamics. Some examples are: team color, name, and logo.

**telecommuting.** To work at home by the use of an electronic linkup with a central office.

**territorial.** Of or relating to the geographic area under a given jurisdiction.

**thesis statement.** The main point of a paper, which you try to support through research.

**thought speed.** The amount of time it takes for people to hear a thought and process it. This is typically a good deal faster than speaking time.

**timekeeper.** One who keeps track of time and plans the schedule.

**time management.** The process of effectively using time to gain control of events, conditions, or actions.

**time wasters.** Activities that do not promote the efficient use of time.

**tines.** Slender pointed part of a fork. Prongs.

**tone.** (1) A sound of distinct pitch, loudness, vibration, quality, and/or duration; the particular or relative pitch of a word or phrase; (2) A degree of tension or firmness, as of muscle.

**training.** (1) to form by (or undergo) instruction, discipline, or drill; (2) to teach so as to make fit, qualified, or proficient

**training aid.** Any item that enhances the quality of instruction and helps to display instructional material.

**transcripts.** Official or legal and often published copies; especially : an official copy of a student's educational record.

**trigger words.** Words that evoke an emotional response that prevents effective listening.

**tuition.** The price of or payment for instruction.

## U

**understanding.** Knowledge and ability to judge.

**university.** An institution of higher learning providing facilities for teaching and research and authorized to grant academic degrees; specifically : one made up of an undergraduate division which confers bachelor's degrees and a graduate division which comprises a graduate school and professional schools each of which may confer master's degrees and doctorates.

## V

**Venn Diagram.** The overlapping circles of this graphic organizer are most useful for comparing and contrasting topics. The free parts of each circle contain the elements

unique to each topic. The parts of the circle that overlap contain elements that are shared by each topic.

**verbal.** Of, relating to, or associated with words.

**verbal/linguistic intelligence.** Strong language and literacy skills.

**violence prevention.** Discouraging or hindering acts of physical force that cause injury or abuse.

**virtual worker.** Employee who telecommutes and perform work tasks virtually, via the internet, phone and fax.

**visual/spatial intelligence.** The gift of visually representing and appreciating concepts, ideas, and information (visual thinking).

**visualize.** To see or form a mental (visual) image of.

**vocal qualities.** The characteristics of someone's speaking voice.

**vocational.** Of, relating to, or being in training in a skill or trade to be pursued as a career.

**volume.** The amplitude or loudness of a sound.





LEADERSHIP EDUCATION & TRAINING

***Unit 4:  
Wellness, Fitness  
and First Aid***



*US Army Cadet Command - FT. Monroe, Virginia*

HEADQUARTERS, DEPARTMENT OF THE ARMY

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## ACHIEVING A HEALTHY LIFESTYLE

### LESSON 1: CHOOSING THE RIGHT EXERCISE PROGRAM FOR YOU



*aerobic*  
*anaerobic*  
*calisthenics*  
*cardiorespiratory*  
*isometric*  
*isotonic*  
*obesity*  
*tone*

#### INTRODUCTION

What you eat and how much you exercise can directly affect how you look and feel. When it comes to your appearance, diet and exercise help you maintain proper weight, **tone** muscles, and have healthy hair and skin. When it comes to your health, diet and exercise can lower your risk of heart disease, high blood pressure, and other health problems including depression. Staying healthy and looking good mean following a balanced diet and exercising regularly. This chapter discusses guidelines for a healthier lifestyle that will help keep you fit and feeling great now and throughout your life. This first lesson specifically covers exercise, including types of exercises and how to stick with an exercise program.

Some people consider exercise a chore, while others think it's fun — and then there are those who avoid it altogether. With the right outlook, however, everyone can find an exercise program that they enjoy. More and more people find ways to keep fit, from walking to joining fitness clubs, because more

and more people recognize the importance of exercise to physical and mental health.

Although the fitness craze has hit many Americans, it has not yet reached most of America's youth. This is unfortunate, because not only is exercise good for you, it can also be fun. You can form friendships with people you meet while exercising on the track or basketball court, at the gym or pool, etc. You will feel better about yourself, improve your resistance to disease, and relieve stress found at school and work. Basically, being fit improves your overall health — both physically and mentally.

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#### YOUTH FITNESS FACT SHEET

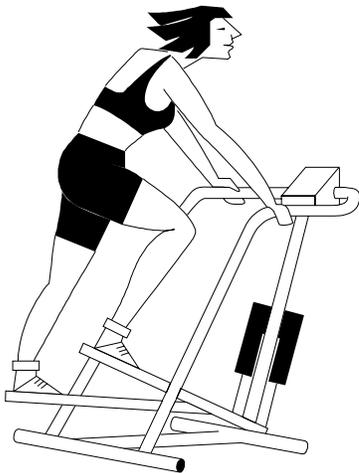
(adapted from the President's Council on Physical Fitness)

- Youth fitness in the United States has not improved in the last 10 years and, in some cases, has declined.
  - Approximately 50 percent of girls ages 6 to 17 and 30 percent of boys ages 6 to 12 cannot run a mile in less than 10 minutes.
  - Fifty-five percent of girls ages 6 to 17 and 25 percent of boys ages 6 to 12 cannot do a pull-up.
  - Boys generally perform better than girls on fitness tests, except in the area of flexibility.
  - Girls' scores increase until age 14, where they plateau and then decrease (except for flexibility, which continues to improve to age 17).
  - American children have become fatter since 1950 (U.S. Public Health Service).
  - Forty percent of children between the ages of 5 and 8 show at least one heart disease risk factor (i.e., **obesity** [overfat], elevated cholesterol, high blood pressure).
  - Only 36 percent of America's schoolchildren in grades 5 through 12 are enrolled in daily physical education. The average number of gym classes per week in grades 5 through 12 is 3.6.
- 
-

## TYPES OF EXERCISE

The four types of exercise covered in this lesson are **aerobic**, **anaerobic**, **isometric**, and **isotonic**. Each of these types of exercise has different benefits. Review the following descriptions and decide which type of exercise, or combination of exercises, is best for you.

Aerobic exercise works the heart, lungs, and blood vessels. As you exercise aerobically, your heart beats faster and you breathe in more air, so your blood can supply more oxygen to your hard-working muscles. This type of physical exercise improves blood and oxygen flow to vital organs, as well as lung capacity (the ability to take in and use more air). Aerobic exercises should be constant, uninterrupted, and raise your heart rate for a sustained length of time (at least 20 minutes). Jogging, brisk walking, rollerblading, dancing, bicycling, and swimming can all give you an aerobic workout.



Anaerobic exercise, on the other hand, works the muscles intensely in fast bursts of movement and does not require as much oxygen as aerobic exercise. Instead of endurance, anaerobic exercise requires bursts of power and energy, and the ability to maneuver quickly. For example, a sprinter working his or her leg muscles hard in a burst of energy to cross the finish line in a few

seconds is performing an anaerobic exercise. Many sports, from tennis to football, require anaerobic work to move from one point to another as quickly as possible.

Other forms of exercise concentrate specifically on firming and toning muscles and building muscle strength. Working against resistance builds muscle strength. You work against resistance when you try to open a tight lid on a jar or push a heavy piece of furniture across a room. Isometric exercise builds muscle strength by using resistance without joint movement, while isotonic exercise uses resistance with joint movement. For example, when you try to pull your locked hands apart, you perform an isometric exercise. You contract your muscles but do not move any joints. Most weight training, on the other hand, is isotonic. When you do bicep curls, you contract your muscles and bend your elbows to raise the weights to shoulder level.

Each type of exercise may work on one or more areas of the body to strengthen, tone, and develop your muscles, heart, and lungs. Some exercises can be classified as more than one type. Try to develop a balanced exercise program. If you jog, do push-ups as well for upper body strength. If you lift weights, add an aerobic exercise for your heart and lungs. No matter which type of exercise you decide to participate in, you will find it very beneficial.

### BENEFITS OF EXERCISE

- Improves heart and lung function
- Increases muscle strength, flexibility, and endurance
- Improves reaction times
- Helps the body fight disease
- Builds self-esteem and self-confidence
- Reduces depression
- Increases the ability to relax and sleep

### CHOOSING THE RIGHT EXERCISE PROGRAM

The type of exercise program you choose should have three parts: warm-up, conditioning, and cool-down.



The warm-up period allows for a slow increase in the heart rate and sends extra blood through muscles to warm them up. Your warm-up could include slow walking,

mild stretching, or **calisthenics**. Warm-up for five to seven minutes.

The conditioning period brings you into **cardiorespiratory** endurance and/or muscle strengthening activities. This is where most of your exercising occurs. These exercises should push your body to its normal limit, and when you are feeling strong, a little beyond. As exercising becomes easier, your normal limit should change. Walk or jog a little farther; do a few more sit-ups or push-ups. When weight training to gain bulk, increase to heavier weights; to build strength without bulk, keep lighter weights and increase repetitions. With muscle strengthening exercises, give your muscles a day off between workouts to rest. Or, work your upper body one day and your lower body the next. The conditioning period generally lasts twenty minutes

Below is a sample of a weekly physical fitness training schedule. Notice how it includes the warm-up and conditioning

WEEKLY PHYSICAL FITNESS TRAINING SCHEDULE				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Warm-up/Stretching	Warm-up/Stretching	Warm-up/Stretching	Warm-up/Stretching	Warm-up/Stretching
Conditioning exercises, to include strength training	Aerobic conditioning activities	Conditioning exercises, to include strength training		Physical fitness assessment of goal measurement session
Running		Running	Unit fun run	
Cool-down/Stretching	Cool-down/Stretching	Cool-down/Stretching	Cool-down/Stretching	Cool-down/Stretching

Tuesdays and Thursdays are the "recovery" days. They allow the body to recover. Appropriate activities for these days include aerobic dance, kickball, volleyball, touch football, speed work, and/or fun runs.

(Sample)

periods as well as a cool-down period which you will learn about on the next page. The cool-down period allows your heart rate to slow down, relaxes muscles, and cools the body. Slow walking, simple calisthenics, and mild stretching are good ways to cool down. Stretching during cool-down can prevent muscle cramps and soreness. Cool-down should last four to six minutes.

**CAUTION: BEFORE BEGINNING ANY EXERCISE OR DIET PROGRAM, IT IS IMPORTANT THAT YOU HAVE THE APPROVAL OF YOUR PHYSICIAN**

### **STICKING WITH AN EXERCISE PROGRAM**

Even though many people know how important exercise is to a healthy lifestyle, they have trouble sticking with an exercise program. Follow these tips and you will find it easier to keep your resolution to become or remain physically fit.

- Think of fitness as part of your daily routine, just like brushing your teeth, going to class, or eating dinner.
- Set realistic and specific goals for yourself. If you have never jogged before, do not expect to jog three miles your first time out. You may become discouraged. Plan to jog one mile and stick with it, even if you have to walk part of the way. You will find that you progress quickly, building your self-confidence.
- Exercise at least three times a week. If you exercise less than this, you probably will not see much progress, giving you an easy excuse to give up.
- Keep track of your progress in a journal. It is motivating to look back at where you started and see how far you have come.

- If you are a routine person who likes for things to remain the same, keep the same exercise routine from week to week. If you get bored easily and like change, develop several exercise routines that you can alternate from week to week.
- Exercise with a friend or group. You will get support from others and feel more committed to stick with it.
- Choose a place to exercise that is convenient for you. If the place you plan to exercise is far from home or school, you may not get there as often as you should.
- Wear comfortable clothing and shoes to make your exercise experience as pleasant as possible.
- Stay positive and have fun. Remember that you are doing something good for yourself. Be serious and consistent with your exercise routine, but enjoy it as well. If you choose an exercise program that you just cannot learn to enjoy, try something else. There is an exercise program for everyone!

### **CONCLUSION**

Regular exercise is important to maintaining your health. It can make you feel and look better and help your body fight disease. Different exercise programs have different benefits, like aerobic dancing for a strong heart and weight lifting for strong muscles. No matter what exercise program you choose, remember that the most important thing is to stay active. So much in life today makes things easy for us — elevators, escalators, cars, electric appliances — that it's easy to get out of shape. In addition to an exercise program, take the stairs, walk or bike to the store, go bowling with friends instead of watching television. It can be fun, and it's all to your benefit!

## LESSON 2: YOU ARE WHAT YOU EAT



*calories*  
*carbohydrates*  
*deficient*  
*diabetes*  
*fats*  
*fiber*  
*metabolism*  
*minerals*  
*nutrients*  
*osteoporosis*  
*protein*  
*stimulant*  
*vitamins*

### INTRODUCTION

A healthy lifestyle includes good nutrition as well as exercise. You need to eat well in order to maintain an exercise program. After all, just as a car will not run without fuel, your body will not work properly without the right nutrients. Eating a balanced diet also helps you maintain proper weight and lowers your risk of disease. This lesson explains the importance of a proper diet to your health.

Americans live in a fast-paced environment and frequently eat on the run. Eating on the run too often, however, may affect your nutrition and weight. You can end up consuming too many **fats** and too few vegetables and fruit, leaving you overweight and/or **deficient** in certain nutrients. Learning to eat balanced meals, even on the run, contributes to your overall well-being by:

- helping to maintain proper weight
- providing energy for physical activity
- supplying nutrients for good health

### BALANCING CALORIES

You must eat in order to fuel your body. The more active you are, the more fuel your body requires. Even if you remain very still, your body uses a certain amount of energy, or **calories**, on basic functions that work automatically all the time to keep you alive — like your heart beating, your lungs inhaling, and your nerves delivering information. You do not have much control over the amount of calories used for these basic functions. Some people's bodies naturally use more calories to sustain their basic functions, some less. It's often said that those who use more have a high **metabolism**, meaning they can eat more and not gain weight.

Your body also uses calories to do everything else throughout the day, from brushing your teeth, to studying, to stretching. Unlike your basic functions, however, you can control how many calories you voluntarily use throughout the day by how active you are. For example, you will use more calories if you choose to walk for an hour instead of watching television for an hour. Also, the more effort you put into an activity, the more calories you burn. For example, walking at a brisk pace uses more calories than walking at a leisurely pace.

When your body uses the same amount of calories daily that you eat daily, your weight stays the same. If you eat more calories than your body uses, your body stores the unused calories as fat and you gain weight. If you eat fewer calories than your body needs, your body uses the stored fat for energy and you lose weight. It's a balancing act between numbers of calories eaten and calories used.



Karen wonders why she keeps gaining weight — 10 pounds over the last year. One Saturday, she and her friend, Andrea, meet at the local fast food restaurant for lunch. While they wait in line, Andrea says she played tennis that morning. Karen admits she slept late and watched television. Andrea orders a small soda and a salad with grilled chicken and light Italian dressing; then Karen orders a double hamburger with mayonnaise only, large French fries, and a large chocolate milkshake.

Andrea shakes her head and asks Karen if she ever eats fruit or vegetables. Karen shrugs and says “sometimes.” Andrea explains that she eats hamburgers and french fries every once in a while — in fact, she had that for lunch a few days ago which is why she ordered a salad today. Andrea tells Karen that eating fruit and vegetables more often than fried foods and sweets helps her maintain her desired weight, and she feels better, too. Karen thinks about this for a moment as they sit down to eat.

Perhaps if Karen had access to the following calorie counts, she would reconsider what she ordered. Keep in mind that most people need only between 2000 and 3000 *total* calories a day. (**Note:** The calories listed here are approximate; actual calories of these food items at different restaurants may vary.)

#### *KAREN'S ORDER*

Plain double hamburger with bun (1/4 pound of beef)	540
Mayonnaise (1 tablespoon)	100
French fries (large order)	360
Chocolate milkshake (large)	<u>540</u>
<b>TOTAL</b>	<b>1540</b>

#### *ANDREA'S ORDER*

Salad with grilled chicken	200
Light Italian dressing (2 tablespoons)	50
Small soda	<u>150</u>
<b>TOTAL</b>	<b>400</b>

Even if Karen did not want a salad, she could cut her calories considerably by ordering a single hamburger with mustard and ketchup, a small milkshake, and a regular order of fries. She could also have lettuce and tomato on the burger in order to eat some vegetables. Her new calorie intake would look like this:

Plain single hamburger with bun (2 ounce patty)	275
Lettuce (1/2 cup)	5
Tomato (1 slice)	5
Mustard (1 tablespoon)	8
Ketchup (1 tablespoon)	15
French fries (regular order)	220
Chocolate milkshake (small)	<u>330</u>
<b>TOTAL</b>	<b>858</b>

If Karen really wants to lose those extra ten pounds, however, she should skip the milkshake and replace the fries with a small salad and light dressing. This would reduce her calorie intake to about 400 for lunch. Then, she should get some exercise like her friend Andrea. Playing tennis for an hour uses three times as many calories as watching television for an hour. If Karen sticks to eating sensibly and exercises daily, she will start using more calories than she eats, losing those extra pounds.

## THE IMPORTANCE OF A PROPER DIET TO YOUR HEALTH

Just as important as eating the correct amount of calories to supply your body with energy and maintain proper weight is what you eat to get those calories. If you eat like Karen every day, you are giving your body too much fat, cholesterol, salt, and sugar and denying your body many necessary nutrients. Many health problems are related to poor diets, and these problems can start when you are young. At your next physical examination, ask your doctor about your cholesterol, blood pressure, and blood sugar levels. You may be surprised to find you need to change your diet to improve your health.

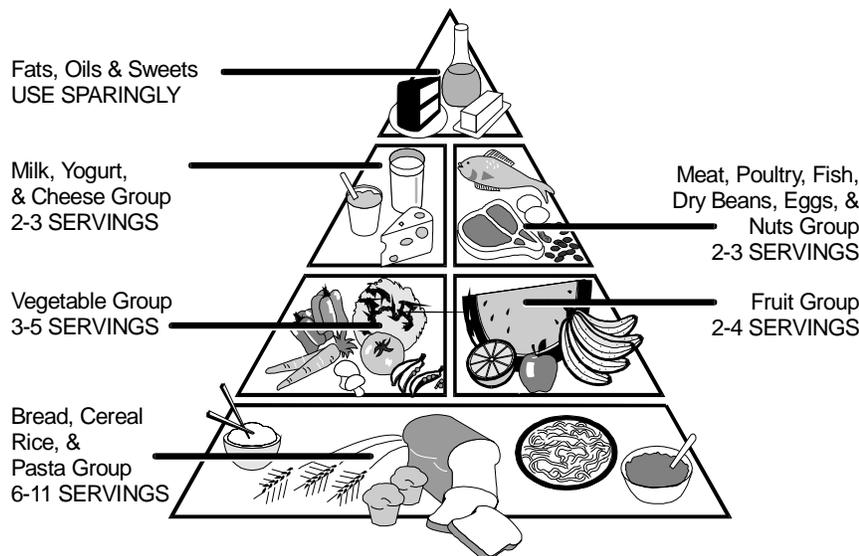
## WHAT SHOULD YOU EAT?

The United States Department of Agriculture developed the Food Guide Pyramid to indicate how many servings of six different food groups you should eat daily to get the nutrients your body needs. If you follow these guidelines, you will get enough **vitamins** and **minerals** to keep your body's processes functioning properly, and you will have enough **carbohydrates**, **protein**, and fat to supply your body with energy. When you do not get enough of certain nutrients, you increase your risk of

disease. For example, if you do not get enough calcium, a mineral found in milk products, almonds, sardines, leafy green vegetables, and beans, you can develop **osteoporosis**.

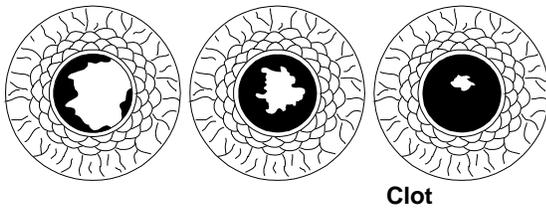
Your body also needs **fiber**, the only form of carbohydrate that is not an energy source. Fiber aids in digestion. It prevents cholesterol, fats, and other toxic materials from entering the bloodstream, and for this reason may lessen your chances of cancer and heart disease. It also helps balance your blood sugar levels, so it helps control **diabetes**. To obtain fiber, eat raw or lightly cooked vegetables, fresh fruit, beans, nuts, and whole wheat or bran breads, cereals, and crackers.

One final nutrient that you do not get from food that is vital to keeping you alive is water. More than 65 percent of the body is water, and, as the body loses water through normal activity and exercise, it must be replaced. Water aids in digestion, regulates temperature, carries vitamins and minerals to all parts of the body, and is important for the removal of waste products from the kidneys. Drink a minimum of five to six glasses of water a day. On the days you exercise, you may need to drink more.



## WHAT SHOULD YOU EAT IN MODERATION?

Your body needs fat for energy, but too much fat in your diet can make you gain weight and can lead to high cholesterol. Cholesterol, a type of fat, is a natural, waxy substance produced by your body and found in animal products. Your body needs some cholesterol to remain healthy, but too much is harmful. As illustrated below, cholesterol forms plaque on artery walls, restricting the flow of blood within blood vessels. This leads to high blood pressure and an increased risk of heart disease. In order to lower cholesterol levels, lower your intake of fat by eating less meat, using oil-free dressings, avoiding fried foods, eating low-fat dairy products, and consuming lots of fiber.



Many foods, especially prepackaged foods and restaurant foods, already have added salt, so do not shake on more. Too much salt in your diet forces your body to retain unnecessary water and may contribute to high blood pressure.

Sugary foods like candy, soda, syrup, and table sugar supply you with calories and

few (if any) nutrients. These foods contain “empty calories” — they give your body calories and nothing else. Avoid them while dieting, and do not eat them as a replacement for other foods that provide nutrition. Many fruits and vegetables naturally contain sugar, but they also provide many other important nutrients.

Limit your intake of coffee, tea, and sodas that contain caffeine, a **stimulant**. While caffeine temporarily reduces drowsiness and makes you more alert, in large quantities it can upset your stomach, make you nervous and irritable, keep you awake when you want to sleep, and give you diarrhea.

## CONCLUSION

Your body needs food for energy, just like a car needs fuel to run. How much food your body needs depends on how active you are and how many calories your body uses to keep its basic functions operating. You know you are getting the right amount of calories from food when you maintain your ideal weight. Not only does food supply you with energy, but the right foods also provide the nutrients your body needs to operate properly and lower your risk of disease. Eating a healthy, balanced diet and exercising regularly increase your chances of a long, strong, and disease-free life.

## LESSON 3: NUTRITION — NOURISHING YOUR BODY



*amino acids*  
*cholesterol*  
*complex carbohydrates*  
*fat soluble*  
*vitamins*  
*metabolic*  
*mono-unsaturated fats*  
*poly-unsaturated fats*  
*proteins*  
*referenced daily intake (RDI)*  
*saturated fats*  
*simple carbohydrates*  
*water soluble vitamins*

### INTRODUCTION

Nutrition is the science of nourishing the body properly in order to reach the higher levels of dynamic living. This lesson will introduce you to the six nutrients and show you how to best provide them in a diet that is well rounded yet diversified. You will learn the newest methods available in how to choose your foods and how to read labels. Finally, you will better understand how to maintain a lean body, free from the damaging effects of carrying too much personal fat.

Our diets have radically changed during the past 35 years. With the advent of fast-food outlets, an increase in dual-career parents, and sky-rocketing numbers of single-parent households, most Americans now have a hurry-up lifestyle where proper eating habits take a back seat to convenience and lack of time.

Knowing that our lifestyle is that way, it is very important that young adults have at least a basic understanding of **nutrients**, how to

obtain them, and how to control fat. This knowledge will lead to a more dynamic life and a higher quality lifestyle. The six types of nutrients are **carbohydrates**, fats, proteins, vitamins, minerals, and water.

We also refer to the first three nutrients, carbohydrates, fats, and proteins, as foodstuffs. They give us the energy for all of the bodily processes. When our body uses the foodstuffs, it releases energy. We measure this energy in calories, an amount of energy it takes to raise the temperature of one kilogram of water one degree Celsius. We measure calories in the human body with a calorimeter.

### THE NUTRIENT: CARBOHYDRATES

Carbohydrates are the starches and sugars found in fruits, grains, and vegetables. They have a caloric value of four calories per gram and supply us with short- and long-term energy to accomplish everything from thinking and breathing to running a race.

The short-term carbohydrates are the sugars, or **simple carbohydrates**, which are quickly digested and absorbed into the blood. The most important simple sugar is glucose, or blood sugar. Before the body's cells can use other simple sugars (like fructose, sucrose, and lactose) for energy, a change must occur converting them into glucose. Many sugary foods are sources of simple carbohydrates; however, those like soda and candy have few other nutrients, while fruit is an excellent source of simple carbohydrates and contains many other vitamins and minerals as well.

The long-term carbohydrates are starches, or complex carbohydrates, which are made up of combinations of simple sugars. They take longer to digest because the body must break them into simple sugars (glucose) before they can enter the bloodstream. When your body has extra glucose that it does not

need right away for energy, it converts it into the complex carbohydrate glycogen and stores it in the muscles and liver to be released later when energy is needed, usually for short periods of strenuous activity. Once your muscles and liver store as much glycogen as they can hold, your body changes the rest to body fat for long-term energy. Long distance runners will use carbohydrate loading (eating large quantities of carbohydrates) in order to have the long-term energy they need to complete the race.

Good sources of complex carbohydrates are grains (such as bread, cereal, pasta, and rice) and starchy vegetables (such as peas, corn, beans, and potatoes). These starchy foods are also important sources of vitamins, minerals, and fiber. Fiber provides no calories but is roughage that aids in the movement of food through the digestive system.

## NOURISHING YOUR BODY'S FUEL WITH FATS

Fats, or lipids, perform the vital roles of maintaining body temperature, insulating body organs, providing the body with stored energy, and carrying the fat soluble vitamins A, D, E, and K to the cells. One gram of fat is the equivalent of nine calories of energy, more than twice the amount of carbohydrates. Therefore, minimum consumption of fats is the most sensible approach to maintaining a lean body fat content.

Triglycerides are the primary fats in the foods we eat, as well as the fats stored in body tissue. They include **saturated fat**, which mainly comes from animal sources and does not melt at room temperature, and **mono-unsaturated** and **poly-unsaturated fats**, which are usually liquid oils of vegetable origin. When you eat too many calories, your liver changes them into triglycerides and stores them as fat. When you eat too many saturated fats,

your liver makes more **cholesterol** than your body needs, which is unhealthy.

Your liver already produces about 1000 milligrams (mg) of cholesterol daily and diet adds another 400 to 500 mg. Cholesterol, a waxy, sticky substance found in animal and human tissue, insulates nerves and forms hormones, cell membranes, vitamin D, and bile to aid in food digestion.

Your blood carries cholesterol by way of lipoproteins, with low density lipoproteins (LDL) carrying cholesterol from the liver to the cells to accomplish the functions mentioned. Unfortunately, the LDLs deposit any cholesterol that is not needed by the cells in the arteries, giving them the nickname of the “bad guys.” Cholesterol accumulated on the inside walls of the arteries is a factor in the development of atherosclerosis. Eventually, cardiovascular disease, in the form of a heart attack or stroke, may result.

### DID YOU KNOW?

**Cardiovascular disease is the main killer of American people.**

The high density lipoproteins (HDL) carry the extra cholesterol in your blood to the liver to dispose of it, thus preventing cholesterol from building up in the arteries. For this reason, HDLs are known as the “good guys.” To keep cholesterol at a normal level in the body, you must lower LDL levels and raise HDL levels. Steps you can take to accomplish this are to eat less fat, especially saturated fat, maintain appropriate body weight, and participate in a regular exercise program. Eating more fiber will also help, since it binds with cholesterol and carries it out of the body; and consuming mono-unsaturated fats, like olive, canola, and peanut oils, raises HDLs.

## NOURISHING YOUR BODY WITH PROTEINS

The body contains substances called **proteins** in every cell. They aid in the development and maintenance of muscle, bone, skin, and blood. Proteins are also the key behind keeping the immune system strong. They control the chemical activities in the body that transport oxygen, iron, and nutrients to the body cells. The body can also use protein for energy if it is low on carbohydrates and fats; but in most cases, its role as an energy source is minor. Proteins, like carbohydrates, contain four calories per gram.

The building blocks of protein are the amino acids. These chains of carbon, hydrogen, oxygen, and nitrogen linked together in different ways control all of the activities mentioned above. There are 22 amino acids found in the human tissue, but the body cannot manufacture all of them. Eight (nine for children) amino acids, known as the essential amino acids, must come from the food we eat since the body cannot produce them. We refer to the food products that contain all eight essential amino acids as having complete proteins. The best sources of complete proteins are meat, fish, poultry, and dairy products. Plant foods generally contain incomplete proteins since they are either low on or lack an essential amino acid. However, plant foods can be combined easily, such as rice and beans or peanut butter and bread, to include all essential amino acids in high enough amounts to form a complete protein.

The remaining 14 amino acids are known as the nonessential amino acids. They are still necessary for bodily functioning, but are called “nonessential” because they do not have to be supplied in the diet. Instead, the

body manufactures nonessential amino acids itself.

Keep in mind that while animal and dairy products are sources of complete proteins, many are often high in fat as well. As you will read later in this text, Americans get most of their protein from animal sources instead of from combinations of complex carbohydrates. You will have a healthier diet and still meet your protein needs if you consume less fatty foods and more carbohydrates in the forms of grains and vegetables.

## REGULATING YOUR BODY WITH VITAMINS, MINERALS, AND WATER

### VITAMINS

**Vitamins** are promoters of health and wellness. Unlike the carbohydrates, fats, and proteins, the body does not digest vitamins; instead, food products release them and your body tissues absorb them. We classify vitamins as either **fat soluble** or **water soluble**. With the help of fats, the intestinal tract absorbs fat soluble vitamins (A, D, E, and K) and stores them in the body. The water in the tissues dissolves the water soluble vitamins (B complex and C).

Many countries have standards for vitamin and mineral requirements to recommend daily amounts needed for good health. For example, the standards for the United States are the Referenced Daily Intakes (RDI). From time to time, the federal government reviews these standards and proposes new ones as research continues and more complete information about vitamins and minerals is discovered. Shown on the following pages are the U.S. RDI for vitamins and minerals.

VITAMINS			
VITAMIN	U.S. RDI	FUNCTIONS	SOURCES
A	5000 International Units (IU)	Helps maintain eyes, skin, and linings of the nose, mouth, digestive, and urinary tracts	Liver, dairy products, fortified margarine, orange fruits and vegetables, dark-green vegetables
B-1 (Thiamin)	1.5 mg	Helps convert carbohydrates into energy	Yeast, rice, whole-grain and enriched breads/cereals, liver, pork, meat, poultry, eggs, fish, fruits, vegetables
B-2 (Riboflavin)	1.7 mg	Helps convert nutrients into energy; helps maintain skin, mucous membranes, and nervous structures	Dairy products, liver, yeast, fruits, whole-grain and enriched breads/cereals, vegetables, meat, poultry
B-3 (Niacin)	20 mg	Helps convert nutrients into energy; essential for growth; aids in synthesis of hormones	Liver, poultry, fish, milk, eggs, whole-grain and enriched breads/cereals, fruit, vegetables
B-5 (Pantothenic Acid)	10 mg	Helps convert nutrients into energy	Liver, yeast, whole grains, eggs, beans, milk
B-6 (Pyridoxine)	2.0 mg	Aids in more than 60 enzyme reactions	Milk, liver, meat, green, leafy vegetables, whole-grain and enriched breads/cereals
B-7 (Biotin)	0.3 mg	Helps convert nutrients to energy	Liver, yeast, milk, oatmeal, beans, nuts, egg yolk
B-9 (Folic Acid)	0.4 mg	Aids in blood cell production; helps maintain nervous system	Liver, green, leafy vegetables, beans
B-12 (Cobalmin)	6 micrograms (mcg)	Helps form new cells	Meat, seafood, poultry, dairy products, eggs
C	60 mg	Helps maintain and repair connective tissue, bones, teeth, cartilage; promotes wound-healing	Broccoli, brussels sprouts, citrus fruit, tomatoes, potatoes, peppers, cabbage, other fruits and vegetables
D	400 IU	Helps regulate calcium and phosphorus metabolism; promotes calcium absorption; essential for development/maintenance of bones and teeth	Fortified milk, eggs, fish-liver oils, sunlight on skin
E	30 IU	An antioxidant (prevents oxygen from interacting destructively with other substances) that helps protect cell membranes, maintain fats and vitamin A, and increase blood flow	Green, leafy vegetables, whole grains, seeds, nuts, vegetable oil/shortening, liver, egg yolks
K	60 – 80 mcg*	Helps in blood clotting	Green, leafy vegetables, liver, tomatoes, egg yolks, milk

\* No U.S. RDI established. Amount is an estimated recommendation for dietary intake.

### POINTS OF INTEREST: VITAMINS

According to a 10-year study of 11,348 U.S. adults, vitamin C was effective at cutting death rates from heart disease and stroke. The study tested three groups getting:

- 50 mg or more a day in food, plus an average supplement of 500 mg
- 50 or more mg and no supplement
- less than 50 mg with no supplement.

Men in Group 1 had a 35% lower mortality rate and 42% lower death rate from heart disease and stroke. Women in Group 1 were 25% less likely to die of heart disease or stroke and had a 10% lower mortality rate.

Taking supplements of 2000 mg of vitamin C daily might be helpful to allergy sufferers.

A new study found vitamin E cuts the risk of certain cancers. Plus, two other studies with 130,000+ people reported vitamin E helps prevent coronary heart diseases.

### MINERALS

Minerals are elements found in the environment that help regulate the bodily processes. Without minerals, the body cannot absorb vitamins. Macrominerals are minerals that the body needs in large amounts. These are calcium, phosphorus, magnesium, potassium, sulfur, sodium, and chloride.

MACROMINERALS			
MINERAL	U.S. RDI	FUNCTIONS	SOURCES
Calcium	1000 mg	Structure of bones and teeth; muscle contraction; maintenance of cell membranes; blood clotting; nerve impulse transmission; heart activity	Dairy products, small fish (like sardines) with bones, dark-green vegetables, dried beans and peas
Phosphorus	1000 mg	Structure of bones and teeth; release of energy from nutrients; formation of enzymes	Meat, poultry, fish, eggs, dried beans and peas, dairy products
Magnesium	400 mg	Building bones; release of energy from muscle glycogen; conduction of nerve impulse to muscle	Green, leafy vegetables, nuts, soybeans, seeds, whole grains
Potassium	3500 mg*	Muscle contraction; maintenance of fluid and electrolyte balance; transmission of nerve impulse; release of energy from nutrients	Orange juice, bananas, dried fruit, meat, bran, peanut butter, potatoes, coffee, tea, cocoa
Sulfur	140 mg*	Part of sulfur-containing amino acids; firm proteins of hair, nails, and skin	Meat, wheat germ, dried beans and peas, peanuts
Chloride and Sodium	No more than 2400 mg*	Regulate blood and fluids; nerve impulse transmission; heart activity; <b>metabolic controls</b>	Table salt (sodium chloride), many canned soups and processed foods, pickles, soy sauce, sauerkraut, celery

\* No U.S. RDI established. Amount is an estimated recommendation for dietary intake.

Although sodium is a macromineral, many Americans consume too much of it, which can contribute to high blood pressure. High blood pressure, in turn, can contribute to cardiovascular disease. On the other hand, many Americans do not consume enough calcium, and a calcium deficiency can lead to osteoporosis later in life.

Although the body only needs trace minerals (such as selenium, manganese, molybdenum, iron, copper, zinc, iodine, and chromium) in very small amounts, they are also essential for proper functioning of the body. For example, an iron deficiency can reduce the number and size of red blood cells, causing weakness, sleepiness, and headaches.

<b>TRACE MINERALS</b>			
<b>MINERAL</b>	<b>U.S. RDI</b>	<b>FUNCTIONS</b>	<b>SOURCES</b>
Selenium	50 – 75 mcg*	Prevents breakdown of fats	Seafood, whole-grain cereals, meat, egg yolk, milk, garlic
Manganese	5 mg*	Central nervous system; normal bone structure; reproduction	Nuts, whole grains, vegetables, fruits, tea, cocoa powder
Fluoride	1.5 to 4 mg*	Tooth and bone formation	Drinking water in some places, seafood, tea
Molybdenum	75 – 250 mcg*	Part of enzymes	Legumes, cereals, liver, kidneys, dark-green vegetables
Iron	18 mg	Formation of hemoglobin; part of enzymes and proteins	Liver, kidneys, meat, egg yolk, green, leafy vegetables, dried fruit, dried beans and peas, whole-grain and enriched cereals
Copper	2 mg	Formation of red blood cells; part of respiratory enzymes	Oysters, nuts, cocoa powder, liver, kidneys, beans, corn oil, margarine
Iodine	150 mcg	Functioning of the thyroid gland and production of thyroid hormones	Iodized salt, seafood
Chromium	50 – 200 mcg*	Helps the body use carbohydrates and fats; aids in digestion of protein	Liver, nuts, whole grains, Brewer's yeast, meat, mushrooms, potatoes, apples with skin, oysters
Zinc	15 mg	Part of many enzymes; essential to synthesis of DNA and RNA; metabolizes carbohydrates, fats, and proteins; dispose of carbon dioxide; strengthen immune system; helps wounds heal; helps body use vitamin A	Meat, liver, eggs, poultry, seafood

\* No U.S. RDI established. Amount is an estimated recommendation for dietary intake.

**POINT OF INTEREST: MINERALS**

A study has found that heart-disease patients who received 150 mcg of chromium per day had a dramatic jump in the HDL cholesterol, the good stuff that helps keep arteries clear.

**WATER**

About 60 to 70 percent of your body is water, with most of your blood, brain, and muscles being water and even 20 percent of

your bones. Water carries the other nutrients, when dissolved, to all parts of the body where and when needed. It also aids in digestion, regulation of temperature, removal of wastes, joint lubrication, and biochemical processes taking place in the body all the time. Without water you would die in a few days. To maintain all the bodily functions water helps carry out, you need to consume the equivalent of six to eight glasses of water a day. If you exercise regularly, you may need as many as ten glasses, especially on the days you exercise.

## LESSON 4: DIETARY GUIDELINES



*amenorrhea*  
*anorexia nervosa*  
*bulimia*  
*diuretics*  
*electrolyte*  
*episodic*  
*esophageal*

### INTRODUCTION

Today's hurry-up lifestyles, diverse family structures, fast food restaurants, and personal finances have all impacted on the way we eat. Thus, by our actions, America has become a country that is overweight and suffering greatly from cardiovascular disease, cancer, diabetes, and other ailments that hinder our efforts to live a dynamic lifestyle.

In this lesson, we will explain the National Academy of Sciences' 1989 report on how we should eat, as well as some alternative choices that many nutritionists advocate.

#### DID YOU KNOW?

**The American diet consists of a total fat intake between 35 to 40% of the total calories consumed each day.**

The National Academy of Sciences believes there is a close association between total fat intake, saturated fat, high cholesterol, and heart disease. They developed nine guidelines for reducing the risk of chronic diseases and helping to provide protection against the possibility of early disease. As you

read through Guidelines #1, #2, #3, #6, #7, and #8, check them against the results of your journal exercises for the first four lessons to get an idea of how well your diet meets the guidelines.

### GUIDELINE #1

*Goals.* Reduce total fat intake to 30 percent or less of your total calories, the estimated fatty acids (building blocks of fat) intake to less than 10 percent of your total calories, and cholesterol intake to less than 300 milligrams.

*Tips to achieving those goals.*

1. Limit your egg intake. Use two or three egg whites for every yolk. Cholesterol is in the yolk, and egg white is a great source of protein.
2. Use skim milk or one percent milk. Plus, purchase low-fat cheeses, yogurt, and other dairy products.
3. Use margarine sparingly. The soft tub or liquid margarine is best.
4. When ordering in a restaurant, tell the waiter to ask the chef to use only half the oils or fat products he would normally use.
5. Try to eat more fish. Cold water and deep sea running fish are best because of the high omega three oils (fat that may aid in the maintenance of the heart and blood vessels).
6. Eat lean meat, and then sparingly.
7. Bake and broil meat products, if possible.
8. Use the lowest saturated fat cooking oils.

9. When eating snacks, choose low-fat, low sugar content sweets.
10. Learn how to read a label and calculate the fat content in food products.

The diagram at the right shows a sample food label that might appear on a package.

*Notes:*

**Calories:** The Food and Drug Administration bases its labeling on a 2000 calorie diet.

**Percent of Daily Value:** This term tells the percentage of the person’s intake of that nutrient based on a 2000 calorie diet.

**Fat:** The label gives the percentage of fat in that portion which would add to 100 percent of the fat needed for one day, which is 30 percent of the total calories needed for one day.

The bottom of the label has a guide telling you how much of these nutrients you should limit yourself to or take.

**ALTERNATIVE GUIDELINE #1**

**Goals.** Reduce fat intake to 20 percent or less of your total calories, saturated fat to five percent of your total, cholesterol intake to 100 milligrams, and use only four to seven teaspoons of mono- or poly-unsaturated fat a day.

*Tips to achieving that goal.*

Your eating habits can affect your health. Try to develop an eating plan that will keep you at your healthiest level and avoid eating disorders. Presented below is a discussion of two acceptable eating plans and two common, potentially dangerous eating disorders.

<b>Nutrition Facts</b>			
Serving Size: 1/2 cup (114 g)			
Servings Per Container: 4			
<b>Amount Per Serving</b>			
<b>Calories 260</b>		<b>Calories from fat 120</b>	
		<b>% Daily Value*</b>	
<b>Total Fat</b> 13 g			20%
Saturated Fat 5 g			25%
<b>Cholesterol</b> 30 mg			10%
<b>Sodium</b> 660 mg			28%
<b>Potassium</b> 400 mg			11%
<b>Total Carbohydrate</b> 31 g			11%
Sugars 5 g			
Dietary Fiber 0 g			0%
<b>Protein</b> 5 g			10%
Vitamin A 4%    Vitamin C 2%			
Iron 4%    Calcium 15%    Vitamin D 25%			
* Percent (%) of a Daily Value is based on a 2000 calorie diet. Your Daily Values may vary higher or lower depending on your calorie needs:			
<b>Nutrient</b>		<b>2000 Calories</b>	<b>2500 Calories</b>
Total Fat	Less than	65 g	80 g
Sat Fat	Less than	20 g	25 g
Cholesterol	Less than	300 mg	300 mg
Sodium	Less than	2400 mg	2400 mg
Potassium		3500 mg	3500 mg
Total Carbohydrate		300 g	375 g
Dietary Fiber		25 g	30 g
Protein		50 g	65 g
Calories per gram			
Fat 9	Carbohydrate 4	Protein 4	

*The Lifetime Eating Plan*

Nutritional needs vary at different ages. There are different needs for children (age two to adolescence), adolescents, adults, and the elderly. There are also special conditions and needs for pregnant women.

For example, the special concerns for teens are that they often have erratic eating habits, their calcium requirements are high, and after the onset of menstruation, females need more iron. General dietary recommendations are to ensure you eat sufficient

calories to support your growth and activity levels with high-carbohydrate foods. Also, consume iron-rich foods and keep healthy snacks available.

Pregnant women need to increase their caloric intake and to eat adequate protein, iron, calcium, folic acid, and vitamin C. Proper nutrition is essential to avoid complications, including nausea, heartburn, constipation, and gestational diabetes. General dietary recommendations are to eat two dairy servings daily and two cups of calcium-rich vegetables; also eat green leafy vegetables, legumes, broccoli, asparagus, and whole grains. Avoid overcooking. An obstetrician may recommend supplements. Drink at least eight glasses of liquid daily. Avoid alcohol and caffeine.

### *The New American Diet — Step by Step*

Another popular eating plan is The New American Diet. This plan yields similar dietary recommendations as those explained elsewhere in these nine guidelines. However, the basis for this plan is the development of a healthier lifestyle by following a three step approach: Phase I stresses the use of substitutions to your present diet, Phase II introduces new recipes, and Phase III prescribes a new way of eating.

### *Eating Disorders*

Eating disorders such as **anorexia nervosa** and **bulimia** are very common in today's society. People with anorexia nervosa experience extreme weight loss, **amenorrhea** (absence of a menstrual period), and a variety of psychological disorders culminating in an obsessive preoccupation with the attainment of thinness. Fortunately, most anorectics recover fully after one experience with the disease. However, for 10 to 15 percent of its victims, the disease becomes **episodic** and

relentless, resulting in death from the consequences of starvation.

A person with anorexia nervosa normally exhibits:

- An unwillingness to maintain minimal normal body weight for the individual's age and height; weight loss that leads to the maintenance of a body weight 15 percent below normal; or a failure to gain the amount of weight expected during a period of growth, resulting in a body weight that is 15 percent below normal.
- An inordinate fear of gaining weight and/or becoming fat despite being significantly underweight.
- An unrealistic perception of body weight, size, or shape. The person "feels fat" or perceives that one specific part of the body is "too fat."
- An absence of at least three, otherwise normal, menstrual cycles.

On the other hand, people with bulimia experience alternate cycles of binge eating and restrictive eating. Purging usually follows binges, primarily by self-induced vomiting supplemented with the use of laxatives and **diuretics**. The physical and psychological results of such a struggle with bulimia include **esophageal** inflammation, erosion of tooth enamel caused by repeated vomiting, the possibility of **electrolyte** imbalances, and altered mood states, particularly anxiety and depression.

A person with bulimia normally exhibits:

- An episodic eating binge, characterized by rapid consumption of large amounts of food in a short time.

The following groups will provide guidance for eating disorders:

American Anorexia/Bulimia Association,  
New York, NY  
(212) 575-6200  
Program for Managing Eating Disorders,  
New York, NY  
(212) 580-3332

- At least two eating binges per week for at least three months, even possibly experiencing a loss of control over eating behavior while in the process of binges.
- Frequent purges after eating; then, engaging in fasting, strict dieting, or vigorous exercise.
- A constant concern over body shape, size, and weight.
- If you think someone has an eating disorder:
  - Express your concern about the person's health. Although the person may deny there is a problem, show that you care.
  - Try to focus on feelings that the person may be experiencing, such as excessive worrying, anxiety, poor self-esteem, anger, or hurt. Encourage the person to talk about issues not related to food. Be a good listener.
  - Encourage the person to talk to parents, relatives, or a health care or mental health professional.
  - Talk to someone else (possibly a professional) about your concerns for that person.

- Do not label the person. That may make the person feel accused and strengthen feelings of denial.

## GUIDELINE #2

*Goal.* Increase starches and other complex carbohydrates. The typical American diet consists of 22 percent complex carbohydrates and 24 percent sugar.

*Tips to achieving that goal.*

General dietary recommendations are to receive 60 to 65 percent of your diet from the carbohydrate group, 50 to 55 percent of that from the complex carbohydrates, and 20 percent from sugar, with most of that coming from fruits.

### ALTERNATIVE GUIDELINE #2

Most all nutritionists agree with the National Academy's number two guidelines. By choosing those percentages, you will receive more than adequate amounts of fiber.

## GUIDELINE #3

*Goal.* Maintain protein intakes at moderate levels.

Americans receive 68 percent of their protein from animal sources (compared to four to five percent for the Chinese). There is evidence pointing to the rise in some cancers with the increase in animal protein.

*Tips to achieving that goal.*

The body needs no more than 0.45 of a gram of protein per pound of lean body weight per day. Since the minimum requirement is 0.16 grams per pound, 10 to 15 percent of your food should come from

proteins and the majority of that from plant sources.

### *ALTERNATIVE GUIDELINE #3*

The American Heart Association recommends no more than two protein servings daily. However, the U.S. Department of Agriculture recommends two to three servings of the milk, cheese, and yogurt group daily and two to three servings of the meat, poultry, fish, beans, eggs, and nuts group.

### **GUIDELINE #4**

*Goal.* Balance food intake and physical activity to maintain appropriate body weight.

Approximately 1/3 of the American population is overweight. Overweight teenage boys are more likely to die at a higher than usual rate by the age 45. Teenage girls who are overweight are eight times more likely to have trouble in later years with daily routines such as climbing stairs, lifting, and walking.

### *ALTERNATIVE GUIDELINE #4*

Body weight is not the best indicator of measuring food intake versus physical activity. Measurement of body fat is a healthier indicator and a much more concise measuring tool in determining the best balance of food intake and physical activity. Also, the more fat that accumulates around the stomach represents more of a danger to the person.

Fewer than 10 percent of Americans over age 18 exercise vigorously and regularly. Exercise can decrease a person's chance of dying of heart disease, cancer, and a host of other illnesses.

### **GUIDELINE #5**

*Goal.* Avoid alcoholic beverages. Alcohol can produce the following problems with nutritional balance and wellness:

- upsets metabolism
- produces fullness, thus the person does not eat a balanced diet
- increases nutritional needs
- causes inadequate assimilation (digestion and absorption) of the nutrients.

### **GUIDELINE #6**

*Goal.* Limit the daily intake of salt to no more than six grams.

Salt is 60 percent chloride and 40 percent sodium. Too much sodium can lead to high blood pressure in some people (those who are salt sensitive). Furthermore, salt absorbs water in the body, causing the blood pressure to increase because of the larger volume of water the heart must pass through the system.

### *ALTERNATIVE GUIDELINE #6*

1. The National Academy of Sciences recommends no more than 2400 milligrams (1/2 teaspoon) of salt a day. One teaspoon of salt is equivalent to five grams.
2. Switch to "lite" salt, thus reducing the sodium content by one half. Plus, increase potassium (too little increases blood pressure) by using "lite" salt.
3. Eat less processed or manufactured food.

4. Avoid snack food or use unsalted varieties.
5. Limit smoked foods.
6. Limit brine prepared foods such as pickles, olives, and sauerkraut.

### **GUIDELINE #7**

*Goal.* Maintain adequate calcium intake.

Most Americans do not receive enough calcium from their normal diets. Ninety-nine percent of our body's calcium is present in the bones and teeth. One percent aids in the functioning of the blood, muscles, and nerves.

To meet its need for calcium, the body will pull calcium from the bones, causing them to lose their density. This condition, known as osteoporosis, can lead to hip, leg, and arm fractures. Diets that are low in calcium may also cause hypertension (high blood pressure) and some forms of cancer.

*Tips to achieving that goal.*

The referenced daily intake for ages 11 to 24 is 1200 milligrams a day. Adult men and women need 1000 milligrams. Pregnant and nursing women also need 1200 milligrams. To prevent osteoporosis:

1. Participate in lifelong weight-bearing exercises to ensure the density of the bones.
2. Avoid excessive protein.
3. Eat a diet rich in calcium (skim milk, certain fruits, and vegetables).

4. Take calcium supplements, if needed.
5. Avoid starvation diets.
6. Avoid alcohol and smoking.

### **GUIDELINE #8**

*Goal.* Avoid taking dietary supplements in excess of the referenced daily intake in any one day.

*Tips to achieving that goal.*

There are two schools of thought on this guideline. One says that we can get all of our vitamins and minerals from our normal diet without supplementation. The other opinion is that by taking supplemental dosages of specific vitamins and minerals, we can protect ourselves from birth defects, cataracts, cardiovascular disease, and cancer, and strengthen the immune system.

### *ALTERNATIVE GUIDELINE #8*

1. Take a general vitamin/mineral supplement daily, not to exceed the RDI.
2. Take a calcium supplement.
3. Take antioxidant vitamins in supplemental form: vitamin C, vitamin E, and beta carotene. See the following nutrition prescription for an additional alternative.

### *Your Nutrition Prescription*

Vitamin and mineral supplements are indispensable anti-aging weapons, but too many people use them shotgun style — a handful of this, a bunch of that — instead of coordinating them for the most life-lengthening strategy. To ensure that you are

**PERSONAL SUPPLEMENT BLUEPRINT**

<u>Supplement</u>	<u>Longevity Standard</u>	<u>My Dose</u>
Beta-carotene	15,000 IU	_____
Vitamin A	10,000 IU	_____
Vitamin B-1	25 mg	_____
Vitamin B-2	25 mg	_____
Niacinamide	100 mg	_____
Pantothenic acid	50 mg	_____
Vitamin B-6	25 mg	_____
Vitamin B-12	100 mcg	_____
Biotin	100 mcg	_____
Folic acid	400 mcg	_____
Vitamin C	500 mg	_____
Vitamin D	400 IU	_____
Vitamin E	200 IU	_____
Calcium	1,200 mg	_____
Chromium	100 mcg	_____
Copper	2 mg	_____
Iodine	150 mcg	_____
Iron*	18 mg	_____
Magnesium	200 mg	_____
Manganese	5 mg	_____
Molybdenum	50 mcg	_____
Selenium	200 mcg	_____
Zinc	30 mg	_____

\* Double-check with your doctor before adding iron to your regimen. Some people are prone to iron overload.



not over- or under-doing any element, you need a prescription customized for your age, gender, health, and lifestyle — just what the six questions below will give you.

For each “yes” answer, follow the directions for revising the Supplement Blueprint. If you end up with more than one recommendation for a particular nutrient, follow the highest single dosage.

1. **Are you male?** Delete iron.

2. **Do you smoke or live/work with a smoker, or do you live in an air-polluted area?** Increase C to 1000 mg, selenium to 400 mcg, beta-carotene to 25000 IU, E to 400 IU, copper to 3 mg, and zinc to 50 mg.
3. **Do you exercise at least three times a week for 20 or more minutes?** Increase E to 400 IU, magnesium to 400 mg, B-1 to 100 mg, and zinc to 50 mg.
4. **Are you on the Pill?** Increase B-6 to 50 mg.
5. **Are you pregnant or nursing?** Increase folic acid to 800 mcg, iron to 60 mg, calcium to 1300 mg, and magnesium to 400 mg. Delete A.
6. **Do you have high cholesterol levels and/or a family history of heart disease?** Increase E to 400 IU, C to 1000 mg, beta-carotene to 25000 IU, chromium to 200 mcg, and magnesium to 400 mg.

According to Ronald Hoffman, MD, Director of the Center for Holistic Medicine in New York City, supplements are especially important for people who do not eat 1) fresh fruits and vegetables daily; 2) dairy products more than once a week; or 3) at least two full meals a day. Some of the above recommendations are higher than the U.S. RDI's because longevity research has leapfrogged

over the old standards. However, all recommendations are well within safety guidelines. Avoid taking more than the amounts suggested; megadosing can be dangerous. Remember, check with your doctor before starting any supplement regimen.

### **GUIDELINE #9**

*Goal.* Maintain an optimal intake of fluoride, particularly during tooth formation — which normally continues until the beginning of the teenage years. The

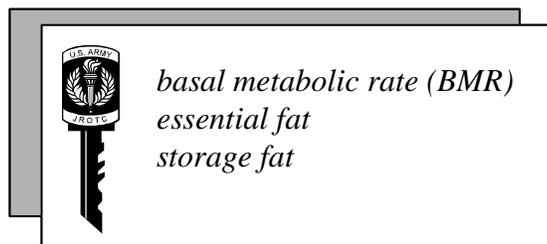
requirement for sufficient intake of fluoride begins during pregnancy to ensure proper tooth and bone development.

Fluoride is important to tooth and bone formation. It makes the teeth harder, and they can resist decay and breakdown. Only two-thirds of the U.S. population receives fluoridated water.

*Tips to achieving that goal.*

The National Research Council of the National Academy of Sciences recommends one milligram of fluoride for each liter of water consumed.

## LESSON 5: CONTROLLING FAT



### INTRODUCTION

In today's society, obese and overweight people, young and old, seek corrective advice from all types of organizations and individuals. These "experts," for many reasons, attempt to encourage and control what we eat, how we eat, when we eat, how much of what we eat, etc.

In this lesson, you will learn how it is possible, without difficulty, to carry an amount of fat that is helpful and encourages the dynamic living principle. You will see in the simplest terms a method designed to keep you healthy and promote enjoyment of living while participating in life to your fullest potential.

### FAT CONTROL

To be obese or overweight increases your risk of cardiovascular disease, high blood pressure, gall bladder disease, diabetes, and certain types of cancer. It also prevents you from performing actively at your highest potential and raising your self-esteem and self-assurance.

To determine whether you are obese or overweight does not depend on how much you weigh on a scale. All of us have our own unique and special body types, which include our inherited strengths and weaknesses, and tendencies that encourage accumulation of fat

in our formative years. These tendencies include:

- family eating habits
- a tendency to develop more fat cells
- a large skeletal structure
- any number of unproved theories passed down through the years

To ensure that you follow a proper and proven method for obtaining a healthier lifestyle, we will present you with a few guidelines on learning how to control your fat intake. As you read through the next two sections, you will learn how to control the amount of fat you consume in your daily diet.

### STEP BY STEP TO A LEAN BODY FAT CONTENT

#### *STEP 1: RESTRICTING YOUR FAT INTAKE*

Most of us are continually trying to lower our body fat. When you diet, the body says you need to store more fat instead of less. This causes, especially in females, the body to slow down, which reduces the fat burning enzymes. Therefore, with each diet you undertake, the body reduces more fat burning enzymes, making it harder for you to lose fat. But remember, fat levels that drop too low are also unhealthy and unsafe. A certain amount of **essential fat** is necessary to maintain the bodily functions discussed earlier.

For example, most women should not go below eight percent, as this would upset the menstrual cycle, the ability to conceive children, and eventually hormonal balance. In men, the lower limit is approximately three to four percent.

**Storage fat**, on the other hand, is our fat reserve that can become a problem for many of us. Women in general seem to have a

greater propensity to store fat. The reason for this is probably estrogen, which increases the fat-storing capability. Evidence points to the hips, thighs, and buttocks as the body's most desirable storage areas.

Listed below are ratings of body fat percentages by age and gender:

### **Males ages 18 to 30:**

Athletes	6 – 10%
Good	11 – 14%
Acceptable	15 – 17%
Possibly needs help (Obese/Overweight)	18% and over

### **Females ages 18 to 30:**

Athletes	10 – 15%
Good	16 – 19%
Acceptable	20 – 24%
Possibly needs help (Obese/Overweight)	25% and over

The average-weight adult has approximately 25 to 30 billion fat cells whereas the average overweight adult has between 60 to 100 billion. However, some overweight people can have as many as 200 billion. Many factors are responsible for the development of these fat cells. Despite all the reasons, a person's growth and/ or activities may or may not use all of the foods, or calories, consumed. The body will store the non-used calories as fat. For maximum benefit, keep saturated fat to a minimum. Count your total fat intake over a seven-day period. If you fowl up, just cut back the next day.

When your fat content is where you desire, the next step is to develop a lifetime guideline for healthy eating. Calculate your daily intake of carbohydrates, fats, and proteins (as you did in the Journal Exercises for those lessons). Then, choose one of the

following plans and stick to it. The two plans that best enhance the dynamic living profile are #2 or #3. Whichever plan you select will require an effort on your part to make it succeed; but, it will work and you can enjoy the benefits of that change.

#### *Plan #1 (Average American Diet)*

Fat	37 – 42%
Saturated Fat	12 – 15%
Protein	10 – 15%
Carbohydrates	40 – 45%

#### *Plan #2 (The New American Diet)*

Fat	20%
Saturated Fat	6%
Protein	10 – 15%
Carbohydrates	60 – 65%

#### *Plan #3 (The Lifetime Eating Plan)*

Fat	10%
Saturated Fat	Low
Protein	10 – 15%
Carbohydrates	75 – 80%

#### *Plan #4 (U.S. Dietary Goals)*

Fat	30%
Saturated Fat	10%
Protein	10%
Carbohydrates	60%

### ***STEP 2: EXERCISE — HOW THE BODY BURNS FOOD (CALORIES/ENERGY)***

In addition to eating a healthy diet, you must follow an exercise program to maintain a lean body fat content. Balancing how many calories you consume with how many calories your body burns daily is the key to maintaining body fat content and weight. People gain body fat when they consume more calories daily than their bodies

use for energy. Keep in mind that one pound of body fat contains approximately 3,500 calories. Therefore, if a person wants to lose a pound of body fat in one week, he or she must burn 3,500 calories more than he or she consumes over the course of the week.

Your body burns calories even when it is at complete rest. **Basal metabolic rate (BMR)** is the number of calories burned at complete rest, and it varies based on age, health, and body size, shape, and weight. For example, after age 25, most people's BMR decreases approximately one percent because their requirements for energy slow down. In addition to your BMR, your body burns calories through muscle activity; and while you do not have much control over your BMR, you do have control over the amount of physical activity you participate in. Obviously, the more active you are, the more calories you use.

Choose an exercise program that accomplishes the two goals of improving your heart and lungs, as well as working your muscles. You can increase the efficiency of the heart and respiratory system through exercises such as jogging, swimming, and biking that increase the heart rate and maintain it for a set period of time. The time will vary based on your age, abilities, and the exercise being performed.

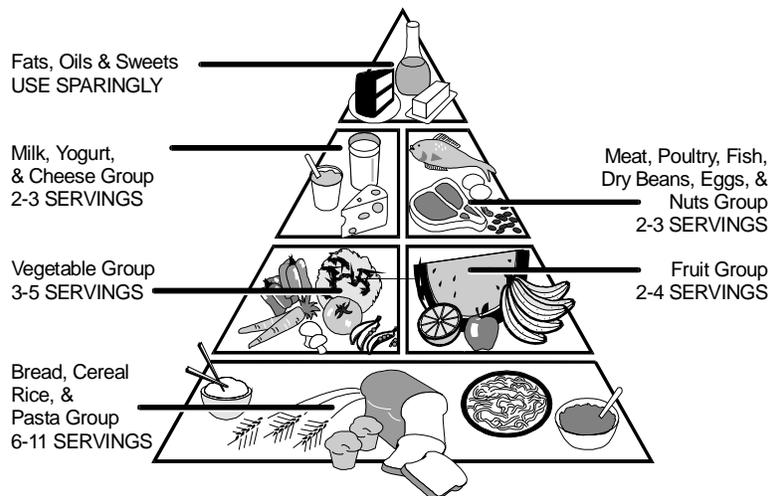
The second goal of working your muscles includes toning your muscles and/or increasing your muscle size, and improving your muscle strength. Since muscle burns more energy than fat, the more muscle tissue you have, the more calories you burn. This is also true of your BMR, meaning that even at rest, the more muscle mass you have, the more energy your body will burn. You can work your muscles through weight training and exercises such as push-ups and sit-ups.

### STEP 3: FOOD CONTROL AND CHOICE

People eat for many different reasons: they feel hungry, the time of day, they missed a meal, or they are following their families' eating routine. Whatever the reason to eat at any given time, it is the choice of food that will truly make the difference in whether you will develop an overfat problem or maintain the dynamic living profile.

The food groups at the bottom half of the Food Guide Pyramid are foods that you should eat three or more times daily. Do not hesitate to eat plenty of these foods freely. They foods you should be eating daily are as follows:

Vegetables: fresh, steamed, or microwaved — lots of carrots, broccoli, cabbage, brussels sprouts, kohlrabi, Swiss



chard, and cauliflower (anti-carcinogenic properties).

Fruits — lots of oranges, apples, apricots, peaches, grapefruit (vitamin C).

Breads, cereals, rice, and pasta — lots of stone ground and low fat breads and cereals (vitamin E).

The Food Guide Pyramid is an outline of what to eat daily. It is not a rigid prescription, but a general guideline developed by the U.S. Department of Agriculture that will let you choose a healthful diet that is right for you. The Pyramid calls for eating a variety of foods to obtain the nutrients you need and at the same time the right amount of calories to maintain a healthy weight. For example, the base of the food group Pyramid shows you should eat six to 11 servings of grain based foods each day. A slice of bread generally equals one serving. These foods provide carbohydrates (starches), which are an important source of energy, especially in low-fat diets.

**STEP 4: MEASURING YOUR BODY FAT**

This text presents two fairly accurate methods of measuring your body fat. Follow the directions and do not be discouraged. Body types differ, and you are your own special person.

*Pinch an Inch Test*

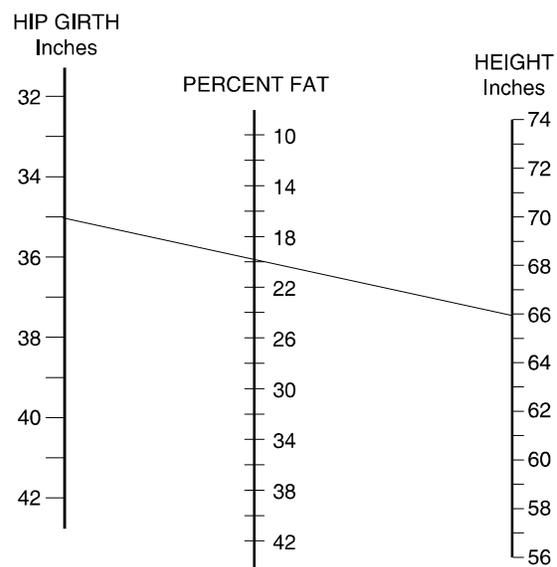
Remember, your body does not need large amounts of fat. When your storage, or reserve, fat begins to melt away, you can determine the right level by using the “pinch an inch” test as a simple method of measuring and maintaining your body’s fat.

You can perform the “pinch an inch” test by pinching the skinfold of your triceps (women only), waist, or thighs between your fingers. If the fat is over an inch between your thumb and forefinger, you might consider continuing your fat control program.

*Estimating Body Fat*

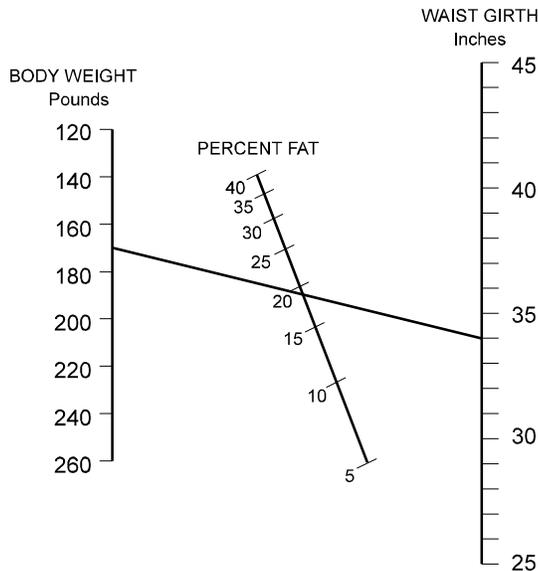
Jack H. Wilmore, an exercise physiologist at the University of Texas in Austin, created the following ways to measure body fat.

Ladies, measure the circumference of your hips at the widest point, and plot that measurement and your height on the following chart. Then, using a straight edge, draw a line connecting the two plots. Your body fat percentage is where the line crosses the percent fat column. Refer to the appropriate chart in Step 1 to see if your fat content is acceptable, good, athletic, or needs help.



Guys, measure the circumference of your waist at the exact level of the belly button, making sure to keep the tape perfectly horizontal. Plot that measurement and your

weight on the chart at the top of the next column. Then, using a straight edge, draw a line connecting the two plots. Your body fat percentage is where the line crosses the percent fat column. Refer to the appropriate chart on in Step 1 to see if your fat content is acceptable, good, athletic, or needs help.



## THE ROAD TO FAT CONTROL

A 1992 Consumer Reports survey with 68 nutrition experts indicated a deepening concern over America's dietary habits and implicated the leading causes of death as being associated with eating and drinking. The causes of death are: coronary artery disease (heart attack), cancer, cerebral vascular disease (stroke), diabetes, liver disease, plus bowel disorders and osteoporosis.

The 68 experts agreed on a reasonable diet for the American people as one that closely resembles the dietary guidelines set forth by the U.S. RDI and the Department of Health and Human Services. Additionally, the experts were much more deliberate in defining an "ideal" diet as one that maximizes

the immune system, reduces the risk of disease, and minimizes the process of aging.

By understanding the experts' opinions and responses, you can develop a formula that promotes a healthier lifestyle. If used properly, this formula can improve your immune system and risks against the leading causes of death, keep your body fat at a healthy level, and enhance your potential to maintain an ideal body fat content for life.

## CARBOHYDRATES: HOW TO EAT THEM

A definition of natural foods is one that fits the carbohydrate category perfectly. The definition says: natural foods are foods that are as unrefined as possible and free from additives and preservatives. Fruits, vegetables, and grains in their natural state are the key elements to a maximized immune system and a body fat content that will maintain itself for a lifetime.

There is growing evidence that a diet rich in fruits, vegetables, and grains will reduce the risk of certain cancers. Such a diet will also protect the heart and bones from early breakdown and infirmity, which limit millions of Americans from enjoying their potential.

The experts recommend at least seven servings of fruits and vegetables and six servings of grain products a day. To be realistic in our hurry-up lifestyles, this may not be possible. However, evidence supports eating small amounts of these natural products several times a day for maximum benefit.

If you can consume 60 to 80 percent of your calories from the carbohydrate group, you will be able to control your body fat much easier. There are two main reasons why this is so important: There are only four

calories per gram in carbohydrates and, in order to store carbohydrate as storage fat, it takes 23 calories out of each 100 calories eaten. That means you can consume more food and still maintain a lean body fat content.

This dieting regimen will enable you to receive all the fiber you need (20 to 35 grams a day) without worrying about supplemental fiber. Plus, there is also room to enjoy a sweet treat. But remember, look at the label and keep the fat content for the sweet to nearly zero.

### *PROTEIN: DON'T WORRY*

If you are eating the recommended amounts of carbohydrates in a diversified manner, tests indicate you will receive your complete protein needs without concern. Most of your protein (about 85 to 90 percent) should come from plant sources, or the complex carbohydrates. Studies indicate that populations eating a high degree of protein coming from animal products (as are the Americans with 70 to 75 percent) will have a higher incidence of problems.

### *FAT: THE CULPRIT*

A typical American diet contains a 35 to 40 percent fat intake per day. Of that, saturated fat is about 10 to 15 percent. Minimizing the intake of saturated fat lowers the LDL (“bad” cholesterol) levels, making it advisable to cut down on saturated fat to five to seven percent of total daily fat intake. Overall, total fat intake should preferably be no more than 20 percent of your total caloric intake per day. This regimen will not only aid in the improvement of your complete health profile, but it will help you to maintain a minimal body fat content.

## *VITAMINS, MINERALS, AND WATER: THE REGULATORS*

In general, the experts believe that you can receive your vitamins and minerals in sufficient amounts from a well-balanced diet. They also suggest that you drink water at a rate of six to eight glasses per day — more if you work out rigorously.

## **CONCLUSION**

The science of nourishing the body properly is a continually revolving door of facts, information, and misleading information. Much of the data is very conflicting and difficult to sort out, although there is some material that has remained consistent throughout the years. A basic understanding of this information will enable you to stay properly nourished.

To begin building a healthy diet, the Dietary Guidelines of Americans provides the following advice:

1. Eat a variety of foods to obtain the energy, proteins, vitamins, minerals, and fiber you need for good health.
2. Maintain a healthy weight to reduce your chances of having high blood pressure, heart disease, a stroke, certain cancers, and the most common kind of diabetes.
3. Choose a diet low in fat, saturated fat, and cholesterol. Because fat contains over twice the calories of an equal amount of carbohydrates or protein, a diet low in fat can help you to maintain a healthy weight.
4. Choose a diet with plenty of vegetables, fruit, and grain products that provide the needed vitamins, minerals, fiber, and complex carbohydrates, and can help you to lower your intake of fat.

5. Use sugars only in moderation. A diet with lots of sugars has too many calories and too few nutrients for most people.
6. Use salt and sodium only in moderation.
7. Avoid drinking alcoholic beverages. Although alcoholic beverages supply calories, they have little or no nutrients. Furthermore, drinking alcohol is the cause of many health problems and accidents.

This lesson presented up-to-date information and numerous guidelines from which you can make proper dietary choices. However, there are still many unanswered questions, such as “What is the role of supplementation?” and “How much fat is too much?” In the future, there will be more discoveries, which will lead to unlocking more doors and to expanding our understanding and potential for a dynamic, healthier way of life.

## LESSON 6: TAKING CARE OF YOURSELF



*ampule  
bivouac  
chlorine  
disinfect  
dysentery  
galvanized  
hygiene  
iodine  
lice  
personal hygiene  
purified  
sanitation*

### INTRODUCTION

Exercise, rest, and good **hygiene** and nutrition can help you stay healthy and avoid many illnesses and infections. In other words, you can prevent disease and injury by taking good care of yourself. You learned about the importance of nutrition and exercise to your health in the previous section of this text. This section covers the importance of good hygiene habits. In particular, it discusses hygiene and **sanitation** when attending JROTC summer camp or camping on your own, with friends, or family. In these cases, you may not have the modern conveniences of clean, running water or indoor plumbing, but you must still know how to take care of yourself to help prevent illness and maintain good health.

Most likely, there are certain habits that you perform routinely at the start of each day. You are probably so accustomed to doing them that you do not give them a second thought. First, you wake up after resting your body during the night. Then, you shower if you did not shower the night before,

wash your face, and comb your hair. It is now time for breakfast — some toast and cereal perhaps. And, last but not least, you brush your teeth and leave for school.

Now, stop for a minute and think about the activities that we have just described. They involve rest, nutrition, and cleanliness, three elements that are important to maintaining good health and are a part of **personal hygiene**.

It is easy for most of us to practice personal hygiene in our homes where there are sinks, showers, toilets, and clean water, all of which help with sanitation. In some situations, however, practicing personal hygiene and maintaining sanitary conditions take more effort and require greater care. For example, if you are camping, you may have to work harder at hygiene and sanitation depending on conditions at your campsite. Also, when you are staying in close quarters with several other people, like at JROTC summer camp, hygiene and sanitation become extremely important. The poor sanitation or hygiene habits of one person can lead to a disease or illness that affects an entire group.

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The following story illustrates the importance of maintaining all aspects of health and sanitation when out in the field.

On Togatabu Island in 1942, the 14th Artillery and the 404th Engineer Battalions were part of a task force preparing to attack Guadalcanal. Fifty-five percent of the engineers and 65 percent of the artillerymen contracted a disease called “Filariasis,” transmitted by mosquitoes. Both units had to be medically evacuated without seeing any enemy action because they were not combat ready. The use of insect repellent, insecticides, and the elimination of standing water

would have prevented the spread of this disease.

Often in military history, the health of the troops influenced the course of battle more than strategy or tactics. “Historically, in every conflict in which the United States has been involved, only 20 percent of all hospital admissions have been from combat injuries. The other 80 percent have been from diseases and nonbattle injuries.” (*Field Hygiene and Sanitation*, FM 21-10)

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## PERSONAL HYGIENE

### *KEEP CLEAN AND DRY*

Imagine how you would feel if you did not bathe for a week. Now imagine how others would feel about having to be around you during that time. Uncleanliness or disagreeable odors affect the morale of others, so the solution is for everyone to take personal responsibility for their own hygiene.

A daily bath or shower helps maintain cleanliness and prevent body odor, common skin diseases, and infection. When you are in the field, however, bathing daily may not be possible. In this case, make sure you take a full shower at least once a week (or at the earliest opportunity) and use a washcloth daily to wash:

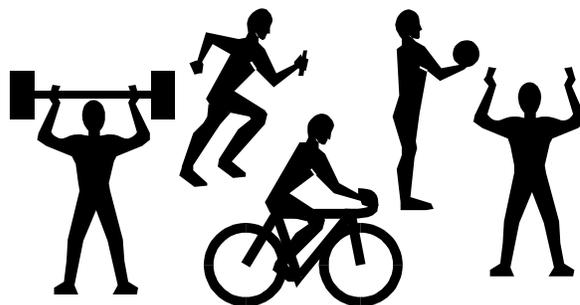
- Your face
- Your armpits
- Your genital area
- Your feet

- Other areas where you sweat or that become wet, such as between your thighs or, for females, under the breasts.

Powders, such as talcum powder, help to keep your skin dry when in the field. Apply it to places where you tend to sweat, and to your feet and inside your socks each morning, especially if you have had prior foot infections. Change to clean clothing regularly. When outdoors, this will aid in the control of **lice**. Make sure the clothing you wear in the field is loose and does not restrict circulation. Avoid wearing nylon undergarments. Wear cotton, which is more absorbent and allows the skin to dry.

### *STAY PHYSICALLY FIT*

People who are physically fit are less likely to get sick or injured, so participate regularly in a fitness program. Physical fitness training will also help you become adjusted to a field environment. Remember to use caution when exercising in extremely hot or cold weather.



### *GET ENOUGH SLEEP*

The average person needs eight hours of sleep a night. Make sure you get enough sleep so you have the energy to effectively complete the required tasks of your day. You may have a harder time sleeping when you are away from home, bunking with others, or

camping. Follow these suggestions to get as much rest as possible.

- Sleep as much as you can before going someplace where you may not be able to sleep comfortably or as much as you should.
- Take catnaps whenever you can, but expect to need a few minutes to wake up fully.
- When in the field, follow your leader's instructions and share tasks with other cadets so everyone gets time to sleep.
- After going without sleep, catch up as soon as possible.
- Learn and practice techniques to relax yourself quickly.

If you have not gotten enough sleep in the field and are required to remain awake and alert, try to follow the suggestions listed below:

- Play mental games or talk with other cadets to stay alert during dull watches or critical jobs such as driving at night.
- Take short stretch breaks or do light exercises in place.
- Do not trust your memory — write things down. Double check your communications and calculations.
- Watch out for your mind playing tricks (like seeing things that are not there) when you are very tired. Check strange observations before acting.

### *LEARN TO REDUCE STRESS*

Stress begins in the mind but causes physical reactions in the body. Although stress can be beneficial in small doses by supplying you with bursts of energy to complete a project on time or compete in an important game, stress that continues over long periods of time can weaken your immune system and lead to exhaustion and illness. People under too much stress may not care for themselves properly or be able to complete tasks effectively.

To keep yourself healthy and efficient, you must learn to relax and reduce stress. The following hints may help.

- Maintain a positive attitude.
- Do not try to do more than is possible or take on tasks for which you are not prepared.
- Talk with friends or family when you encounter difficulties.
- Take time each day to do something that you enjoy, even if it is only for fifteen minutes.
- Do not worry about things that are out of your control, but concentrate on what you *can* do.
- Exercise regularly.
- Recognize that stress is a normal reaction to many situations, like taking a test, giving a speech, or participating in field training. Take a deep breath, relax, and do not let stress interfere with accomplishing the task at hand.

To help reduce stress in a group or among friends or fellow cadets, give each other moral support if things are tough at home, school, or in the unit. Welcome new replace-

ments into your group and be active in establishing friendships. By building a feeling of esprit de corps, you can minimize stressful feelings of loneliness and isolation. When in the field, attempt to care for other cadets and work together to provide everyone food, water, sleep, shelter, and protection from heat, cold, and poor sanitation.

## BASIC PRINCIPLES OF SANITATION

Poor sanitation can contribute to conditions that may result in diarrhea and **dysentery**. Intestinal diseases are usually spread through contact with bacteria and germs in human waste, by flies and other insects, or in improperly prepared food and water supplies.

### *USE PURIFIED WATER*

When you are staying outdoors, in the field, or traveling in foreign countries with questionable water supplies, use only water that is **purified**. Fill your canteen with treated water at every chance. To treat or **disinfect** water, bring it to a boil for 5 to 10 minutes. When heated water is not available, disinfect water using one of the following methods:

#### *1. The Preferred Method: Iodine Tablets*

- a. Fill a one-quart canteen with the cleanest water available.
- b. Put one iodine tablet in the water; two in cold or cloudy water. Double these amounts in a two-quart canteen.
- c. Place the cap on the canteen, wait 5 minutes, then shake. Loosen the cap and tip the canteen over to allow leakage around the canteen threads. Tighten the cap and wait an additional 25 minutes before drinking.

#### *2. Treating with Chlorine*

- a. Fill a one-quart canteen with the cleanest water available.
- b. Mix one **ampule** of chlorine with one-half canteen cup of water. Stir the mixture with a clean device until the contents dissolve. Take care not to cut your hands when breaking open the glass ampule.
- c. Pour one canteen capful of the chlorine solution into your quart of water.
- d. Replace the cap on your canteen and shake. Slightly loosen the cap and tip the canteen over to allow leakage around the threads. Tighten the cap and wait 30 minutes before drinking.

#### *3. Another Alternative: Tincture of Iodine*

- a. Fill a one-quart canteen with the cleanest water available.
- b. Add 5 drops of 2 percent Tincture of Iodine to the water. If the water is cold or cloudy, add 10 drops.
- c. Mix thoroughly by shaking the canteen. Slightly loosen the cap and tip the canteen over to allow leakage around the threads. Tighten the cap and wait 30 minutes before drinking.
- d. Very cloudy or cold water may require prolonged contact time. Let it stand several hours or overnight if possible.

### *GUARD AGAINST FOOD POISONING*

Wash your hands for at least 30 seconds after using the bathroom or before touching food. Inspect all cans and food packages prior to using them, and throw away

any cans with leaks, bulges, or holes. Do not eat foods or drink beverages that have been prepared in **galvanized** containers, which may result in zinc poisoning. When camping or in the field, wash your mess kit in a mess kit laundry or with treated water or disinfectant solution.

### *BURY YOUR WASTE*

Always bury your waste immediately to prevent flies from spreading germs from waste to your food. Burying your waste also helps keep unwanted animals out of your **bivouac** area.

## **CONCLUSION**

Practicing good personal hygiene and sanitation are common sense actions that everyone should perform. They are particularly important in the field where cadets have a responsibility to both themselves and others, and leaders must plan and enforce preventative measures.

Remember, correct cleanliness habits, regular exercise, good nutrition, and adequate amounts of rest and relaxation can directly affect a person's well-being. By practicing these preventative measures, you can significantly reduce time lost due to illness and injuries.

## LESSON 7: UNDERSTANDING AND CONTROLLING STRESS



*anxiety*  
*depression*  
*dilated*  
*fight or flight response*  
*generalized*  
*manic-depressive illness*  
*meditation*  
*migraines*  
*visualization*

### INTRODUCTION

While stress in small doses is a normal, healthy part of life, stress that continues over long periods of time can lead to exhaustion and possible mental or physical illness. This section discusses what causes stress, how it can affect you, and ways that you can manage it. Handling stress in your life and recognizing symptoms of stress in others will make your life more enjoyable and your leadership more effective.

The media often portrays the teen years as a carefree time, with few major responsibilities and lots of new and exciting experiences. Many young people know, however, that this is only one side of the coin. You may not have the responsibilities of your parents, but your responsibilities are growing as you grow. New challenges and experiences, while exciting, can also be a bit scary. Expectations for the future can be exhilarating, but they can also result in anxiety and pressure to succeed. As teenagers make their way to adulthood, they experience a range of emotions and changes that can make their high school years very stressful.

### WHAT IS STRESS?

Stress is the way your body reacts and adjusts to the psychological and physical demands of life. It can be brought on by situations that cause feelings such as fear, irritation, endangerment, excitement, and expectation. Stress in small amounts is beneficial and needed for motivation, improvement, and growth. It can give you a burst of energy to complete a project or run a race, the control and strength to get through a difficult time, or the inspiration to write a poem or paint a picture. Stress can be an important factor in your achievements and progress.

Yet, times of stress should be followed by times of relaxation to ensure recovery from stress. Experiencing constant stress without a break has a negative effect on people. While stress followed by a period of rest can actually make a person better prepared for the next stressful event, stress followed by more stress without recovery in between can exhaust a person making him or her less prepared to handle the next stressful event. Eventually, constant stress can affect a person psychologically and physically, disrupting normal behavior and resulting in illness.

### PHYSICAL EFFECTS OF STRESS

When your mind perceives a situation as stressful, it triggers a series of physical and chemical reactions in your body. These include increased blood flow to the muscles and brain, decreased blood flow to the skin and digestive organs, shut down of the immune system, and the release of fuel, like fat, into the bloodstream. While these internal reactions to stress will not be obvious to you, noticeable results of these reactions include increased heart and breathing rates, muscle tension, **dilated** pupils, cold hands, and dry mouth.

These reactions happen as part of a **fight or flight response** developed in primitive humans to deal with physical threats by either fighting or fleeing. Either way, primitive man's mind and body placed emphasis on physically responding to stressful situations by providing extra fuel and blood to the muscles while slowing or shutting down other functions.



For modern man, most stressful situations are not life threatening and do not require a physical response, yet being stuck in a traffic jam or pushing hard to finish a report still causes the same physical reactions as those needed for fight or flight. Luckily, once modern man deals with the stress, finishes the stressful activity, or the source of stress goes away, the body and all of its functions return to normal.

On the other hand, if the source of stress continues, the person does not deal with the stress effectively, or the person faces stressful situation after stressful situation, his or her body will not recover its normal state. Eventually, the body's continual reaction to prolonged stress may result in the following physical problems:

- Insomnia
- Grinding or clenching of teeth, especially when sleeping

- Diarrhea
- Indigestion
- Ulcers
- Nausea
- Backaches
- Headaches
- **Migraines**
- Uncontrollable tics or twitches
- Stuttering
- Allergies
- Asthma
- High blood pressure
- Heart disease

Of particular note is the connection between continual stress and heart disease. Since most of modern man's stressful situations do not require physical action, the fat pumped into the bloodstream to act as fuel for the muscles is left unused, collecting on artery walls and contributing to heart disease.

### *PSYCHOLOGICAL EFFECTS OF STRESS*

Generally, the first indications a person may have of stress overload are certain feelings, like irritability or worrying. If the person pays attention to these feelings and takes action to reduce stress, the effects of stress will not continue. If, however, the person ignores these initial warning signs and seeks no relief from stress, he or she will experience more psychological effects and probably begin to experience some of the physical effects discussed previously.

Psychologically, continual stress may cause:

- Irritability
- Excessive worrying
- **Anxiety**
- Inability to relax
- Forgetfulness

- Disorganization
- Inability to concentrate
- Inability to complete tasks
- Lack of energy
- Trouble with relationships
- Changed eating habits; over- or under-eating with corresponding weight gain or loss
- Use or increased use of alcohol and other drugs
- Lowered self-esteem
- Feelings of discouragement
- Excessive feelings of guilt or self-blame
- Emotional overreaction, like exploding or crying without reason
- Waking from sleep with a sense of doom
- Disinterest in the world and life
- Dissatisfaction with things that were previously satisfying
- Tendency to avoid people and activities, even those that were previously enjoyed
- Unexplained feelings of helplessness or hopelessness
- Depression



When stress continues to go unchecked, negative feelings, like depression and hopelessness, can intensify over time. In severe cases, people can become depressed enough to try to commit suicide. It is important, therefore, to listen to your feelings, relate them to what is happening in your life,

and respond to them promptly before the effects of stress get out of hand.

## WHAT CAN CAUSE STRESS?

Causes of stress and levels of stress experienced under certain circumstances vary from person to person depending on their personalities and tolerance for different situations and experiences. For example, an outgoing person may find public speaking easy and enjoyable, while a shy person may find it difficult and frightening. On the other hand, the shy person may be quite content to study alone, while the outgoing person may find studying alone nerve-wracking. Neither of these people is better or worse than the other — they are simply two different people reacting differently to the same situations. So, do not compare yourself with others when it comes to stress. What is important is that you understand what causes you stress and learn to manage it before the stress “mismanages” you.

Read through the following items that are common causes of stress for many young people. Think about which ones are stressful for you and whether or not they are things that you can control. Recognizing what causes your stress is a step toward managing it.

### *PERSONAL HABITS*

- Poor time management
- Poor diet
- Irregular sleep habits
- Lack of exercise

### *SOCIAL*

- Conflicts with family or friends
- Peer pressure to use alcohol, tobacco, or drugs
- Peer pressure to engage in a sexual relationship

- Pressure to be popular
- Lack of money

### *MAJOR LIFE CHANGES*

- Death in the family
- Severe illness in the family
- Parents divorce
- Parent remarries
- Moving
- Changing schools

### *ENVIRONMENTAL*

- Air and noise pollution
- Feeling confined
- Overcrowding
- Poor lighting
- Uncomfortable temperature
- Feeling unsafe in your neighborhood, home, or school

### *RESPONSIBILITIES*

- Participating in too many activities
- Having unrealistic expectations of yourself
- Constant deadlines
- Concern about grades
- Concern about college and career decisions
- Having to work and go to school
- Having to care for younger brothers or sisters

### **STRESS STRATEGIES**

There is no way to eliminate stress completely from life. In fact, as previously explained, a stress-free life would not even be desirable, since stress in reasonable amounts aids performance, creativity, and problem solving. Letting stress get out of hand, however, is a common problem in today's hectic world. Fortunately, once you recognize signs

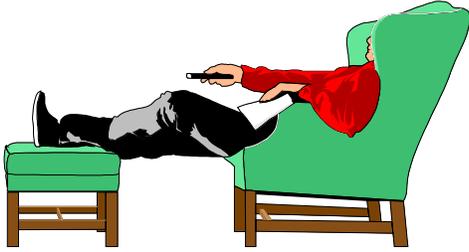
of stress overload in yourself and identify its cause, you can either eliminate the source of stress or, if it is not possible to eliminate it, learn to manage the stress associated with it.

### *PREVENTING STRESS OVERLOAD*

The best way to ensure stress does not get the best of you is to follow life-long habits that promote mental and physical well-being. Getting plenty of sleep, eating well-balanced meals, and exercising regularly will help you cope better with stressful situations, while maintaining a positive outlook will help you face difficulties with more confidence. In addition to these commonsense approaches, the following can also promote well-being and prevent stress overload.

- Manage your time with daily, weekly, and/or monthly schedules. In addition to scheduling time for school, study, extra-curricular activities, etc., make sure you allow enough time for sleep, unhurried meals, relaxation, and other things you enjoy.
- Take care of your problems as soon as possible; avoiding them will not make them go away. The longer you put off dealing with a problem, the more anxious you will feel about it, and the more stress you will create for yourself.
- Keep a journal of the situations you find stressful — for each situation, explain why you find it stressful, how you handled it, and whether or not you believe you could handle it better in the future.
- Develop a hobby and/or participate regularly in an activity you enjoy.
- Take some time every day to do something you find relaxing — whether it is sitting quietly alone and thinking, talking

with a good friend on the phone, or laughing at your favorite sitcom.



- Talk over problems with people you trust and who you know are good listeners. Keeping all your thoughts and feelings to yourself can be very stressful. While you may believe you can handle all your problems on your own, everyone needs at least one person to confide in.
- Accept that throughout life you will encounter stressful situations that you cannot or should not avoid, but recognize that you have control over how you approach and respond to those situations. For example, while Shelley dreads going to the dentist, she realizes it is important, and instead of dwelling on how much she hates it, focuses on the benefits of dental care to her overall health and on how good her teeth will look and feel after the dental appointment. Approaching stressful situations positively and looking to the ultimate outcome of the situation can lower the amount of stress you experience.
- When you do have a choice, do not participate in activities you find stressful and unrewarding. Often times, young people will take part in activities because their friends do, they believe their parents want them to, or they just believe they must do it all. Only you know which activities are enjoyable and worthwhile to you, which bring you negative stress, and how many things you can do before getting overloaded. Be honest with yourself and with those who care about you in making decisions about participating in certain activities. If taking aerobics with your friends makes you feel more uptight than healthy and relaxed, and you would really rather get your exercise going for a walk alone, let your friends know how you feel, then do what is best for you.
- Be prepared when you know you will have to face a stressful situation. For example, if you know that you must give a class presentation, plan for it and rehearse it until you feel comfortable with it. By preparing for it, you will be more calm during the time leading up to the presentation and will feel more confident when giving it.
- Do not use tobacco, alcohol, or other drugs. Using drugs does not solve any problems and, more often than not, causes new ones.
- Do not be overly self-critical; remember that making mistakes is part of the growing process and that learning from them will make you more successful in the future.
- If you can, limit the number of changes you make in your life at any one time. For example, if in the same week that you start a new job after school, you also start getting up earlier each morning to jog before school, you are probably putting too much pressure on yourself. To limit your stress level, get used to the new routine of having an after-school job before you add anything else to your schedule.
- Learn a relaxation technique like **meditation**, **visualization**, or deep breathing.

## RELAXATION TECHNIQUES

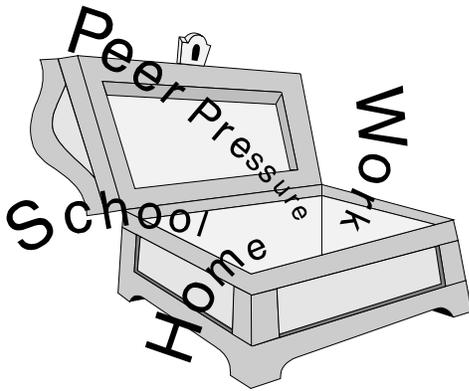
Try using these relaxation techniques when you notice the warning signs of stress.

### Deep Breathing

1. While closing your eyes, take a deep breath in through your nose so that your abdomen expands.
2. Slowly exhale through your mouth, letting all the air out of your lungs and allowing your stomach to contract.
3. Repeat for 5 to 10 minutes.

### The Worry Box

1. Start deep breathing.
2. Visualize a box that has a lock and key.
3. Imagine yourself putting all your worries and fears in the box, then closing the lid and locking it with the key.



4. Imagine yourself putting the key somewhere out of sight — like under a mattress or on the top shelf of a closet — and, therefore, out of mind.

### Meditation

1. Find a quiet place where you can be alone for at least 10 minutes.
2. Sit on the floor with your legs crossed. Some people put one or both of their feet up onto their inner thighs when meditating. Keep your back and neck straight. Relax your arms with your hands in your lap or on your knees — palms up or down, whichever feels most comfortable to you.



3. Close your eyes and try to empty your mind. Many people do this by concentrating on their breathing or on a single word, image, or sound.

### Quick Calming Response

1. Turn inward and “listen” to a sound or word that you find relaxing and choose to use when stress overload hits.
2. As you repeat the sound or word inside yourself, slowly take deep breaths in and out, visualizing the release of the “tense air” from your body with each exhaled breath.

*Progressive Relaxation*

1. Sit or lie down in a comfortable position and begin deep breathing.
2. As you inhale, tighten the muscles in your head and neck area.
3. Relax the tensed muscles as you slowly exhale.
4. Continue with all parts of your body, working your way from head to foot.

*LETTING OFF STEAM*

Sometimes, stressful situations can make you feel frustrated and angry. To keep the stress from getting the better of you and possibly “losing your cool,” try the following:

- Take several deep breaths, releasing tension with each exhale.
- Close your eyes and visualize yourself in a calming situation or place.
- Take a break, if possible; remove yourself from the problem or situation until you feel more relaxed and under control.
- Analyze the importance of the situation. Does it really matter if someone cuts you off in traffic or bumps into you and does not excuse him or herself? Is it worth feeling angry about or wasting your time and energy on? Is it better just to forget it and move on?
- If something is important to you and you can take action, confront the person or situation calmly. If it is not possible to confront the person or problem directly, let off steam, depending upon the situation, by either talking to someone you trust or writing an angry letter, then throwing it away.

- Work off tension with a physical activity, like screaming into a pillow, taking a walk, or lifting weights.

**STRESS AND LEADERSHIP**

As a leader, learn to manage your own stress effectively, so that you do not create a negative environment for your followers. Recognize that your behavior can directly affect the stress level of your group of cadets. Stress in groups can be increased to counter-productive and unhealthy levels when leaders:

- Act unpredictably.
- Constantly find fault with their followers, which eats away at their followers’ self-esteem and results in increased anxiety.
- Set up win/lose situations in which either they are right and their followers are wrong or vice versa
- Demand too much or too little of their followers.

Leaders can keep a group’s stress to healthy levels by:

- Allowing some participation in the decision-making process, which creates a feeling of trust and usefulness in followers, and promotes team spirit and cooperation within the group.
- Giving credit where it is due and praise when warranted.
- Offering constructive criticism when necessary.
- Having a good working knowledge of the tasks the group needs to perform.

- Monitoring and tracking tasks as they are performed and offering guidance when necessary.

As a leader, you must also be aware of any indications that cadets are feeling or acting “stressed out.” If you realize someone is showing signs of stress, let them know that you have noticed they have not been themselves lately, or ask if everything is okay with them. Your concern will probably encourage them to talk to you about how they are feeling, and just the fact that they are talking about it and you are listening can help to relieve their stress.



## DEPRESSION

People often say, “Oh, I’m so depressed,” when they are having a bad day or because some unhappy event has recently occurred. Sadness and grief are normal reactions to certain events in life. A person who is having a passing blue mood is not truly depressed. For minor low moods, stimulating or enjoyable activities, like running or reading a good book, are often all that is needed to raise a person’s spirits.

Major depression, on the other hand, is a serious illness that requires treatment. It affects the whole body and involves thoughts, feelings, bodily functions, and behaviors.

Most people usually recover from bad events in life after a reasonable amount of time; depressed people do not. And while some cases of depression can be traced to a specific stressful experience, other cases of depression seem to have no apparent reason for occurring.

An episode of depression can occur once in a person’s life or many times. A depressed person’s symptoms may last for months, years, or a lifetime. Depression can be so severe that the person cannot function at all. Some people who are chronically depressed are able to function, but never feel really well, content, or happy. They may be unaware that they are even depressed, because they are so used to feeling that way.

Depending upon the individual and the severity of the illness, a depressed person will experience a variety of these symptoms to different degrees. Note that many of these symptoms are similar to symptoms of stress.

- Constantly feeling sad or “empty”
- Feeling hopeless, worthless, and helpless
- Unable to make decisions, remember things, or concentrate
- Loss of interest in normally pleasurable activities
- Irritability
- Disinterest in school, at home, and in other activities
- Not caring about appearance
- Avoiding people; staying alone most of the time
- Difficulty concentrating, remembering, and making decisions
- Problems falling asleep and then problems getting up
- Loss of appetite
- Feeling tired and “slowed down” all the time

- Chronic aches and pains and digestive problems
- Frequent thoughts of death and/or suicide
- Suicide attempts

It is important to remember that depression is a real illness and not caused by personal weakness. Potential for developing some kinds of depression may be inherited, and therefore, biologically related. For instance, **manic-depressive illness** seems to occur in people whose genetic makeup is different than those who do not become ill; however, not everyone who has the genetic makeup for the illness gets it. This suggests that other factors, such as stress, also play a role in the development of the disease.

As with stress, physically active people who eat well and get plenty of sleep tend to feel less depressed than people with less healthy lifestyles. Therefore, if you are feeling mildly depressed, take a look at your current eating, sleeping, and exercise habits, and try to make some changes there. In addition, do things you enjoy, try something different that you have always wanted to do, talk to friends, spend time outside since the color green and the sun are known to boost spirits, and try not to pressure or push yourself for awhile.

Likewise, if you know someone who is exhibiting signs of depression, take the time to listen to how they are feeling and offer them your support. Give them the suggestions listed above for lifting their spirits and breaking out of negative habits. Be patient. Often, depressed people are not fun to be around and may even try to push you away, but they really need a friend to understand and encourage them to try to make some changes.

If after giving these suggestions a try, you think his or her depression is worsening

or becoming long-term, encourage your friend to seek help. Likewise, if you yourself are depressed and believe it is worsening and continuing, seek help. Doctors, psychologists, counselors, mental health clinics, hospitals, family services, social agencies, and private clinics are among the many people and places that offer help for all types of emotional disorders, including depression.

## ANXIETY

Anxiety is a feeling that everyone experiences occasionally when dealing with things they fear or worry about. Unlike depression, which makes people feel tired and unenergetic, anxiety makes people feel nervous and energetic, almost as if they cannot sit still. Like stress, anxiety in small amounts and for short duration can be beneficial. It can give you a spurt of energy and sharpen your mind. Too much anxiety, however, can be harmful and lessen your ability to perform. For example, while a little anxiety before giving a speech can heighten your powers of recall, projection, and expression, too much anxiety can make you freeze, forgetting information and stammering through the presentation.

To keep anxiety from getting the best of you, admit to yourself those things you fear and/or worry about. Then, when you know you will have to deal with one of them, make sure you are thoroughly prepared for it — practice for the speech, study for the test, rehearse the dance routine, workout faithfully before the big meet, etc. Being unprepared will only fuel your anxiety. When you start to worry or feel afraid, remind yourself that it is a waste of your energy, then visualize yourself doing well instead. Prior to the event or situation, focus on its positive outcomes, use the relaxation techniques discussed previously, and avoid caffeine, which only increases anxiety.

While it is normal to be mildly anxious about something that frightens or worries us, feeling anxious without a specific reason can indicate an anxiety disorder. When a person experiences anxiety over a long period of time that is related to so many worries and fears the anxiety has become **generalized**, the person is suffering from free-floating anxiety. Often, the effects of free-floating anxiety are the same as stress overload.



When a person experiences anxiety attacks, which are strong, sudden attacks of anxiety for no apparent reason that last only a few minutes, he or she feels panic and extreme stress accompanied by dizziness, faintness, rapid heartbeat, excessive perspiration, and nausea. A person having an anxiety attack is not able to function until the attack passes. Some people have severe anxiety attacks so frequently that they are constantly fearful and unable to cope with many things in life. People suffering from

excessive anxiety, whether free floating or anxiety attacks, should seek help from a counselor who can help them reduce or learn to deal with their anxiety.

## CONCLUSION

Humans experience a wide range of emotions and not all of them are pleasant. Yet, even certain uncomfortable emotions like stress and anxiety are beneficial in small doses. Sometimes, though, because of hectic, hurried schedules and pressures to do too many things or things we do not necessarily enjoy, stress can get out of hand. When you start feeling and showing warning signs of stress overload, step back and take a look at what is going on in your life. Ask yourself what is causing your symptoms of stress, then take care of it or reduce the stress you associate with it.

Meanwhile, to be prepared for the stressful events that will surely pop up throughout your life, maintain a healthy lifestyle so that you are better able to handle whatever life throws your way. Keep negative stress and anxiety at bay by doing things you enjoy, learning ways to relax, and thinking positively.

Remember, if these uncomfortable emotions ever become extreme or last for long periods of time, *seek help*. They can be disruptive to your mental and physical well-being and can even be initial indications of mental illness and physical disease.

## TAKING THE CHALLENGE

### LESSON 1: READY, GO... CROSSING THE FINISH LINE — YEAR 1

#### INTRODUCTION

This is it! Time to put on your sneakers and start warming up for what may be the toughest part of this unit — participating in exercises designed for the Presidential Physical Fitness Award (PPFA) program. Get ready to tackle these exercises developed to test your physical ability. They require endurance, speed, strength, and flexibility. What can Cadet Challenge do for you? First, it allows you to develop an understanding and appreciation for physical fitness. Second, it shows how an exercise program can improve health and appearance, thereby improving self-confidence. Finally, there is the personal satisfaction involved in striving to achieve a goal and in recognizing and recording your own progress.

#### THE CHALLENGE

Ready to go? It's time for the challenge! Cadet Challenge consists of five exercises taken from the Presidential Physical Fitness Award program. Read the descriptions of how to execute each exercise carefully. Along with each exercise description is a box showing standards to shoot for based on your age and gender. To qualify for the Presidential Physical Fitness Award, you must achieve a standard of 85 percent or higher. In each box showing standards, the 85th percentile standards are listed in the two columns under the heading "PPFA (85%)." If you achieve a standard of 84 percent or below, but above 50 percent, you qualify for the National Physical Fitness Award (NPFA). Fifty percentile

standards are listed in each box in the two columns under the heading "NPFA (50%)."

Cadets who score in the 85th percentile or above on Cadet Challenge are eligible to receive the Presidential Physical Fitness Award that consists of a Presidential certificate of achievement and a blue emblem. Cadets that score in the 50th to 84th percentile are eligible to receive the National Physical Fitness Award that consists of either a National certificate of achievement, a red emblem, or both. Those cadets who achieve Cadet Command's standards in Cadet Challenge are eligible to receive the ROTC Athletic Ribbon. Cadets who attempt all five exercises but score below the 50th percentile on one or more of them are eligible to receive either a Participant certificate of achievement, a white emblem, or both.

If you are a cadet with special needs or have one or more disabilities, which would directly affect your performance on these exercises, see your instructor for criteria for modified or alternative exercises.

#### IMPROVING YOUR SCORES

The exercises in Cadet Challenge test your endurance and physical strength. Initially, it does not matter what you score on these events except to establish a base score from which to build. From there, however, it is important that you establish a routine exercise program, so that your score will improve, and along with it, your health. Work toward achieving the 85th percentile standard. If you have participated in the Presidential Physical Fitness Award program in another physical education program and met the 85th percentile for your age and gender, try to achieve it again this time. If you did not meet that standard, here's a chance to improve.

## BASIC RULES OF EXERCISE

As you prepare for the Cadet Challenge, remember to follow these basic rules:

- ⇒ To produce positive results, exercise at least three times a week.
- ⇒ Begin your exercise program by warming up for five to seven minutes.
- ⇒ Spend at least 20 minutes on conditioning, then cool down for four to six minutes.
- ⇒ With the exception of the v-sit reach, complete the exercises in the challenge during the conditioning period.
- ⇒ Make the v-sit reach part of your warm-up or cool-down

Remember to follow an exercise program that includes aerobic exercise for the one-mile run/walk, anaerobic exercise for the shuttle run, muscle strengthening for the pull-ups and curl-ups, and stretching for the v-sit reach. If you give it your all and perform to the best of your abilities, you will:

- have a stronger body
- feel good about yourself
- appreciate health and fitness.

## THE ONE-MILE RUN/WALK



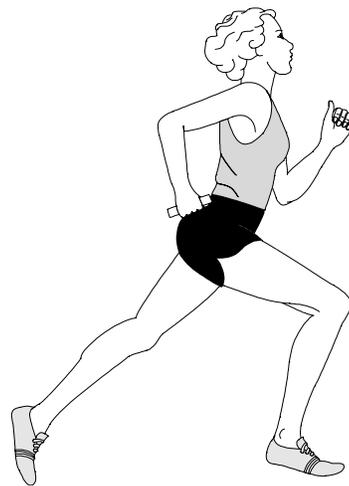
From a standing position on the starting line, run, walk, or use a combination of both to cross the finish line after covering one mile — four times around most high school tracks. Complete the one-mile run/

walk according to the standards shown in the following chart.

Read these times in minutes and seconds; for example, you would read 6:08 as six minutes and eight seconds.

<u>Age</u>	<b>PPFA (85%)</b>		<b>NPFA (50%)</b>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
14	6:26	7:59	7:44	10:06
15	6:20	8:08	7:30	9:58
16	6:08	8:23	7:10	10:31
17	6:06	8:15	7:04	10:22

## SHUTTLE RUN



From a starting line, run 30 feet to another line where there are two wooden blocks. As fast as you can, pick up one block, return to the starting line, set it down, run back for the other block, and return to the starting line again. The following chart shows the standards for the 30-foot shuttle run. Read these times in seconds only; for example, you would read 8.7 as 8.7 seconds or 10.0 as 10 seconds.

<u>Age</u>	<b>PPFA (85%)</b>		<b>NPFA (50%)</b>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
14	9.1	10.1	9.9	11.2
15	9.0	10.0	9.7	11.0
16	8.7	10.1	9.4	10.9
17	8.7	10.0	9.4	11.0

**PULL-UPS** (See Flexed-Arm Hang for an alternative event.)



From a hanging position on a metal or wooden bar, use the overhand grasp (palms facing away from body) or underhand grip (palms facing towards body) to pull your body up so that your chin clears the bar. Then, lower your body to the full hang starting position. Try to do this the number of times shown in the following chart. Make sure that you are high enough so that your feet do not touch the floor or ground each time you straighten your arms. Do not use jerky motions, kick or bend your legs, or swing during each movement.

<u>Age</u>	<b>PPFA (85%)</b>		<b>NPFA (50%)</b>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
14	10	2	5	1
15	11	2	6	1
16	11	1	7	1
17	13	1	8	1

**CURL-UPS**



From a lying position on the floor or mat, pull your knees up so that your feet are flat on the floor and about 12 inches from your buttocks. Have a partner hold your feet. Place your arms across your chest with hands touching opposite shoulders and elbows held close to your chest. Pull your body upward until your elbows touch your thighs; then, lower your body so that your shoulder blades touch the floor or mat. Within 60 seconds, strive to complete the number of curl-ups indicated in the chart below.

<u>Age</u>	<b>PPFA (85%)</b>		<b>NPFA (50%)</b>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
14	56	47	45	37
15	57	48	45	36
16	56	45	45	35
17	55	44	44	34

**V-SIT REACH**



First, take off your shoes; then, assume a sitting position on the floor or a mat with your feet 8 to 12 inches apart and your heels behind a baseline. A yardstick or other measuring device marked in inches will be between your heels running perpendicular to the baseline.

While a partner (or partners) holds each leg flat to the floor, flex your feet and slowly lean forward, stretching your hands (with the thumbs clasped and palms down) to the farthest point possible. Use the yardstick as a guide. There are three practice tries; the fourth attempt is for score. You should complete the v-sit reach by stretching the number of inches past the baseline as indicated in the chart below.

<u>Age</u>	<b>PPFA (85%)</b>		<b>NPFA (50%)</b>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
14	4.5	8.0	1.0	4.5
15	5.0	8.0	2.0	5.0
16	6.0	9.0	3.0	5.5
17	7.0	8.0	3.0	4.5

**ALTERNATIVE EVENT: FLEXED-ARM HANG**

If you cannot do one pull-up, you may do the flexed-arm hang in order to qualify for the National or Participant Physical Fitness Awards. *To qualify for the Presidential Physical Fitness Award, you must do pull-ups.*

From a standing position on the floor or a mat, climb the ladder until your chin is above the pull-up bar. Grasp the bar with your hands shoulder width apart. The back of your hands must be towards your face with your thumbs under the bar. Step off the ladder while a partner removes it and prevents your legs from swinging. Your chin should clear the bar. The stopwatch is started at the command “go.” Strive to keep your chin level for the appropriate number of seconds indicated in the following chart. The stopwatch is stopped when your chin rests on the bar, you tilt your chin backward to keep it above the bar, or your chin falls below the level of the bar.

<u>Age</u>	<b>NPFA (50%)</b>	
	<u>Male</u>	<u>Female</u>
14	20	9
15	30	7
16	28	7
17	30	7

**CONCLUSION**

Cadet Challenge is an introduction to exercising for a specific goal. You will see your scores improve as you continue to practice. Making healthy changes in your lifestyle and working hard to reach this goal will make you a stronger, healthier individual, both mentally and physically, and will bring you the great satisfaction of a job well done.

## **LESSON 2: READY, GO... CROSSING THE FINISH LINE — YEAR 2**

### **INTRODUCTION**

It's time for the challenge! Did you meet or exceed the 85th percentile standards for your age and gender when you took the challenge in Year 1? If so, try to achieve or exceed them again this time. If not, here is a chance to improve. As in Year 1, Cadet Challenge consists of five exercises taken from the Presidential Physical Fitness Award program. Read the descriptions of the exercises in Lesson 1 to refresh your memory on how to perform them. Then, for each exercise, determine what standard to shoot for based on your age and gender. To qualify for the Presidential Physical Fitness Award, you must achieve a standard of 85 percent or higher. To qualify for the National Physical Fitness Award (NPFA), you must achieve a standard between 50 and 84 percent.

- Cadets that score in the 85th percentile or above are eligible to receive the Presidential Physical Fitness Award that consists of a Presidential certificate of achievement and a blue emblem.

- Cadets that score in the 50th to 84th percentile are eligible to receive the National Physical Fitness Award that consists of either a National certificate of achievement, a red emblem, or both. Those cadets who achieve Cadet Command's standards in Cadet Challenge are eligible to receive the ROTC Athletic Ribbon.
- Cadets who attempt all five exercises but score below the 50th percentile on one or more of them are eligible to receive either a Participant certificate of achievement, a white emblem, or both.

### **CONCLUSION**

The exercises in the Cadet Challenge test your endurance and physical strength. Aim to improve on the scores you achieved in Year 1. Establish and maintain a routine exercise program to help your scores improve. If you give the challenge your all and perform to the best of your abilities, you will:

- improve your personal confidence level
- develop athletic motor skills
- begin a pattern for physical fitness and life-long healthy habits.

## **LESSON 3: READY, GO... CROSSING THE FINISH LINE — YEAR 3**

### **INTRODUCTION**

Are you ready for the challenge? How did you do when you took the challenge for Year 2? If you met or exceeded the 85th percentile standards for your age and gender, try to do the same this time. If not, here is an opportunity to improve. As in the past, Cadet Challenge consists of five exercises taken from the Presidential Physical Fitness Award program. Read the descriptions of the exercises in Lesson 1 to refresh your memory on how to perform them. Then, for each exercise, determine what standard to shoot for based on your age and gender. To qualify for the Presidential Physical Fitness Award, you must achieve a standard of 85 percent or higher. To qualify for the National Physical Fitness Award (NPFA), you must achieve a standard between 50 and 84 percent.

### **CONCLUSION**

Use the Cadet Challenge to test your endurance and physical strength. Establish and maintain a routine exercise program to improve on the scores you achieved in Year 2. Give the challenge your all and perform to the best of your abilities so that you will continue to:

- have a stronger body
- feel good about yourself
- appreciate health and fitness
- experience the great satisfaction of a job well done.

## **LESSON 4: READY, GO...CROSSING THE FINISH LINE — YEAR 4**

### **COMPLETING THE CHALLENGE**

Did you meet or exceed the 85th percentile standards for your age and gender when you took the challenge in Year 3? If so, congratulations and try to achieve or exceed them again this time. If not, here is a chance to improve.

Before you begin, read the descriptions of the five exercises taken from the Presidential Physical Fitness Award program in Lesson 1 that make up the Cadet Challenge. Then, for each exercise, determine what standard to shoot for based on your age and gender. In addition, consider the following when you choose a standard:

- Since you are a cadet leader and your performance sets the example for others to follow, your instructors will encourage you to shoot for 85 percent or higher. If you achieve this standard, you are eligible to receive the Presidential Physical Fitness Award that consists of a Presidential certificate of achievement and a blue emblem.
- If you are unable to achieve the Presidential award, strive to achieve a standard between 50 and 84 percent. You are then eligible to receive the National Physical Fitness Award (NPFA) that consists of either a National certificate of achievement, a red emblem, or both.

- Remember, if you achieve Cadet Command's standards in Cadet Challenge, you are also eligible to receive the ROTC Athletic Ribbon.

### **BASIC RULES OF EXERCISE**

Completing some of these exercises at the new levels may be difficult for you. However, if you maintain a good exercise program, watch your diet, and stay healthy, you will see positive changes in your body as you increase in self-confidence. Remember to follow these basic rules:

- ⇒ To produce positive results, exercise at least three times a week.
- ⇒ Begin your exercise program by warming up for five to seven minutes.
- ⇒ Spend at least 20 minutes on conditioning.
- ⇒ Allow four to six minutes for cool down.

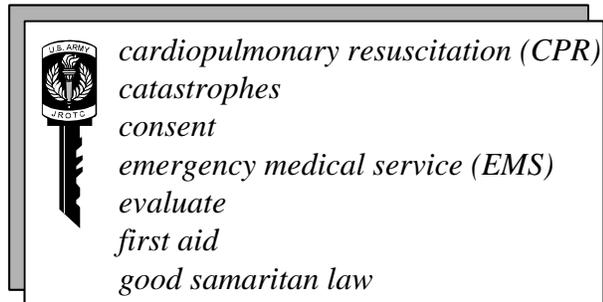
If you perform at your best, you will find that you have a stronger body, feel better about yourself, develop an appreciation for health and fitness, and enjoy healthy athletic competition.

### **CONCLUSION**

Cadet Challenge offers you the excitement of athletic competition, an opportunity to perform at your best, and a program to maintain a healthy, stronger body. Take advantage of the challenge to build strength and self-confidence.

# FIRST AID FOR EMERGENCY AND NON-EMERGENCY SITUATIONS

## LESSON 1: THE NEED FOR FIRST AID/YOUR RESPONSE



### INTRODUCTION

Most people encounter at least one situation requiring the use of first aid at some time in their lives. Whether a friend falls rollerblading and breaks an arm or a younger brother cuts himself on broken glass and requires stitches, someone should administer first aid until the injured person receives proper medical attention. That someone can be you if you acquire basic first aid knowledge of what to do and not to do in different accident situations. Remember that first aid may mean the difference between life and death, permanent and temporary disability, or long- and short-term recovery for an accident victim.

In addition to the first aid taught in this text, consider taking a first aid class from a qualified instructor. Many schools, hospitals, and fire departments offer first aid classes that provide demonstrations and hands-on experience with medical models of victims. Hands-on training is especially important before actually performing mouth-to-mouth resuscitation and **cardiopulmonary resuscitation (CPR)**, both of which can be hazardous to a victim if performed improperly.

### DEFINITION OF FIRST AID

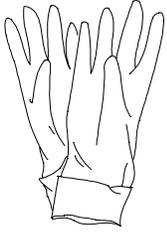
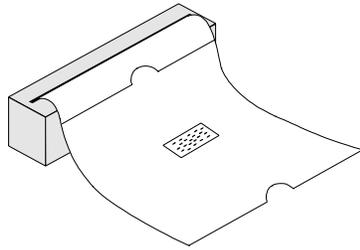
**First aid** is the immediate care given to an injured or ill individual to keep him or her alive or stop further damage until qualified medical treatment can be administered. It is caring for people involved in accidents, **catastrophes**, and natural disasters such as hurricanes, tornadoes, and earthquakes. First aid includes dealing with the situation, the person, and the injury, as well as encouraging the victim and showing a willingness to help.

### GOOD SAMARITAN LAW

The **Good Samaritan Law** is designed to protect the rescuer and encourage people to assist others in distress by granting them immunity against lawsuits. This law protects people from lawsuits as long as the rescuer is acting in good faith, without compensation and administers first aid correctly and without malicious misconduct or gross negligence.

### FIRST AID KIT

Administering first aid is easier with a first aid kit. It is a good idea to keep one in your house and car and take one along on camping trips and hikes. A well-stocked first aid kit contains an assortment of bandages, Band Aids, tape, aspirin or aspirin substitutes, antiseptic cream and cleanser, safety pins, scissors, tweezers, cotton, and tissues. To protect against infectious diseases, include rubber gloves and face shields in the kit. Rubber gloves will keep you from contact with blood and body fluids, and face shields will allow you to give mouth-to-mouth resuscitation and CPR without direct contact.

**Rubber Gloves****Face Shield**

## EVALUATING THE VICTIM

When you encounter an injured person, you must **evaluate** that person to determine what kind of first aid, if any, is needed. This preliminary check of the person follows a series of steps designed to pinpoint and correct the most serious health risks first and then continue with less life-threatening problems. We will explain these steps in more detail later in this lesson; but basically, check for breathing and heartbeat first, for severe bleeding second, then for signs of shock, and finally for broken bones, burns, and head injuries. Depending on what problems your evaluation of an accident victim reveals, perform the life-saving steps in a sequence that parallels this evaluation sequence:

- A: Open the airway
- B: Assess breathing
- C: Assess circulation
- D: Assess disability

When evaluating a conscious victim, ask the victim if you can help and get consent to provide first aid. Then get as much information as possible about the situation and how the victim feels. If the victim is unconscious and others witnessed the accident, get as much information from the witnesses as possible. Check the victim for medical alert

identification. Many people with heart disease, epilepsy, diabetes, and allergies to medications wear medical alert identification bracelets or necklaces, which can give you a clue as to their medical condition.

Have someone at the scene dial 911 for **emergency medical services (EMS)**. If you are alone and the victim's condition is life-threatening, give first aid first, and then call 911. When calling 911, calmly state you're your name and exact location, the telephone number from which you are calling, details of what has happened, and the condition of the victim or victims.

Other important rules to follow at the scene of an accident include:

- ⇒ Remain calm, but act quickly. This will reassure the victim and help him or her to remain calm as well.
- ⇒ Do not move an injured person. If the person has a neck or spine injury or broken bones, moving him or her could worsen the condition. Only move a victim if there is potential danger in remaining at the accident location. If you must move the victim for this reason, pull him or her in a straight line from the shoulders keeping the head and body in line. Support the head and pull the victim as short a distance as possible.
- ⇒ If there is more than one injured person at an accident scene, evaluate them quickly, then help the most seriously injured first. For example, help the person with severe bleeding before you help the person with a broken arm.

## THE LIFE-SAVING STEPS

The following steps list evaluation procedures and specify treatment if necessary. Specific procedures for treatment of different injuries are covered in detail later in this chapter.

1. Check to see if the victim is conscious.
  - a. Ask in a loud but calm voice, “Are you okay?”
  - b. Gently shake or tap the victim on the shoulder.
  - c. Watch for response. If the victim does not respond, go to Step 2.
  - d. If the victim is conscious, ask where he or she feels different than usual or where it hurts. Go to Step 3.
  - e. If the victim is conscious but is choking and cannot talk, stop the evaluation and begin treatment for clearing the airway of a conscious victim.
2. Check for breathing and heartbeat.
  - a. Look for rise and fall of the victim’s chest.
  - b. Listen for breathing by placing your ear about one inch from the victim’s mouth and nose.
  - c. Feel for breathing by placing your hand or cheek about one inch from the victim’s mouth and nose.
  - d. At the same time, check for a pulse in the victim’s neck.
  - e. If there is a pulse but no breathing, stop the evaluation and begin treatment to restore the breathing.
  - f. If there is no pulse, stop the evaluation and begin CPR.
3. Check for bleeding.
  - a. Look for spurts of blood and blood-soaked clothing.

- b. Look for entry and exit wounds.
  - c. If bleeding is present, stop the evaluation and begin treatment for stopping the bleeding.
4. Check for the following signs of shock:
    - a. Sweaty, but cool skin
    - b. Paleness
    - c. Restlessness or nervousness
    - d. Thirst
    - e. Loss of blood
    - f. Confusion
    - g. Faster than normal breathing rate
    - h. Blotchy or bluish skin
    - i. Vomiting or nausea

If any of these signs are present, discontinue the evaluation and treat for shock.

5. Check for fractures (broken bones).
  - a. Check for the following signs of neck or back injury:
    - Pain or tenderness of neck or back area
    - Wounds of neck or back area
    - Paralysis
  - b. Ask the victim if he or she can move.
  - c. Touch the victim’s arms and legs and ask whether he or she can feel it.
  - d. If you suspect a neck or back injury, immobilize the victim by doing the following:
    - Tell the victim not to move.
    - If you suspect a back injury, place padding under the natural arch of the lower back.
    - If you suspect a neck injury, place padding under the victim’s neck and place objects such as rocks or shoes on both sides of the head.
  - e. Check the victim’s arms or legs for fractures or broken bones. Signs are:
    - Swelling
    - Discoloration

- Unusual angle or position of arm or leg
- Bones sticking through the skin

If you suspect a fracture, stop the evaluation and begin treatment for fractures.

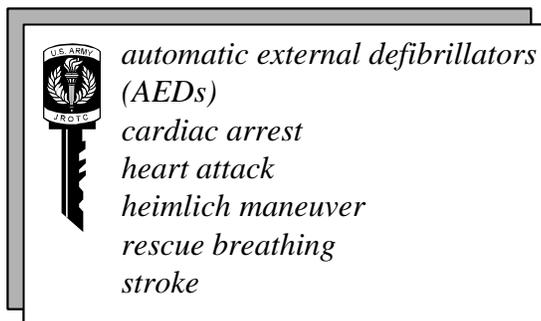
6. Check for burns. If you find burns, cover them with a clean dry cloth.
7. Check for head injury. Some possible signs of head injury are:
  - a. Pupils of eyes unequal size
  - b. Fluid from ear(s), nose, mouth or wounds to the head or face
  - c. Slurred speech
  - d. Confusion
  - e. Sleepiness
  - f. Loss of memory or consciousness
  - g. Staggering when walking
  - h. Headache
  - i. Dizziness
  - j. Vomiting
  - k. Paralysis
  - l. Convulsion or twitching

If a head injury is suspected, keep the person awake. Watch the victim for signs that would require restoring breathing or treating for shock.

## CONCLUSION

First aid is the help that you give an injured person until qualified medical personnel can administer treatment. In other words, think of first aid as aid given first before actual medical treatment. The type of first aid required by an individual depends on his or her injuries, and you determine what those injuries are by carefully and quickly evaluating the person. This evaluation and the administration of first aid follow a sequence that deals with the most life-threatening problems first — breathing and heartbeat, followed by bleeding; and then other health problems — shock, broken bones, burns, and head injuries.

## LESSON 2: THE FIRST LIFE-SAVING STEPS



### INTRODUCTION

In emergency situations, the people involved may find it difficult to remain calm and think clearly. In the midst of this confusion, one simple trick you can use to remind yourself of the first and most important problems to check for and steps to take are the letters A-B-C.

- ⇒ **A** stands for airway. Is the victim's airway blocked? If so, clear the airway.
- ⇒ **B** stands for breathing. Is the victim breathing? If not, restore breathing.
- ⇒ **C** stands for circulation. Is the victim's heart beating? If not, restore the heartbeat.

### CLEARING THE AIRWAY OF A CONSCIOUS VICTIM

Choking occurs when a person inhales something into the airway leading to the lungs, blocking the airway off and preventing breathing. In many choking cases, people inhale particles of food while eating. In an accident, injured people may choke on dirt, broken teeth, or dentures.

A person whose airway is completely blocked off cannot make any sound, because no air is getting to the vocal cords. If a person can speak or cough, some air is getting through to the vocal cords and lungs, and you should let

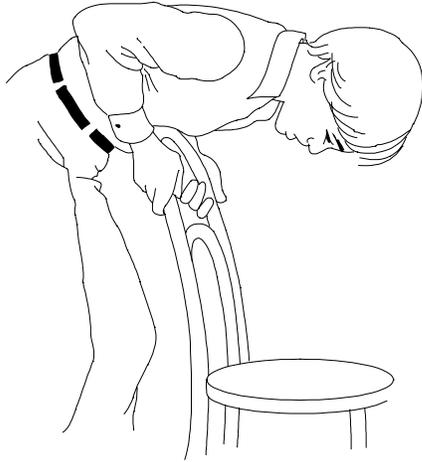
the person try to clear the airway on his or her own. If the person can make no sound and indicates choking by grabbing the throat, the best method to clear the person's airway is the **Heimlich maneuver**.

1. Stand behind the victim and wrap your arms around the victim's waist.
2. Make a fist with one hand and place the thumb side of the fist against the victim's abdomen slightly above the navel and well below the breastbone. Grasp the fist with the other hand.
3. Give 6 to 10 quick backward and upward thrusts; repeat this until the airway is clear.



For an exceptionally overweight person or pregnant woman, use the same procedure, except place the fist in the middle of the breastbone.

If you are the victim of an airway obstruction and no one is around to help, lean forward over a railing, sink, or the back of a chair and thrust yourself down until you dislodge the obstruction.



### CLEARING THE AIRWAY OF AN UNCONSCIOUS VICTIM

If a person is unconscious and you know that individual has an obstructed airway, perform the following maneuver with the victim lying on his or her back:

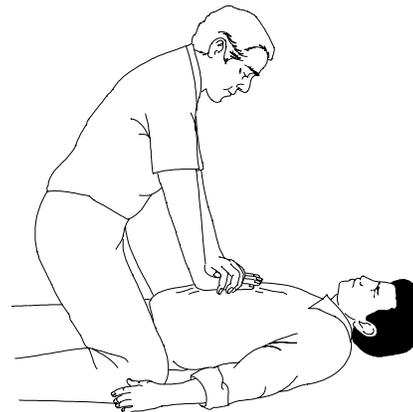
1. Kneel astride the victim's thighs. Place the heel of one hand against the victim's abdomen, slightly above the navel, but well below the victim's breastbone, with your fingers pointing towards the victim's head.
2. Place your other hand on top of your first hand and press into the abdomen with a quick forward and upward thrust. Repeat this 6 to 10 times.
3. Open the victim's mouth and sweep out any foreign matter using a hooked finger. Be careful not to push anything down the throat.

For an obese individual or a woman in the advanced stages of pregnancy, use the following procedure:

1. Kneel to the side of the victim's body. Locate the lower edge of the victim's ribs, and run the fingers up along the rib cage to

the notch where the ribs meet the breastbone.

2. Place the heel of the hand two finger widths above the notch, and place the other hand over the first, interlocking the fingers.
3. Position your shoulders over your hands, and with the elbows locked, press down 1 1/2 to 2 inches, 6 to 10 times.
4. Open the victim's mouth and sweep out any foreign matter using a hooked finger. Be careful not to push anything down the throat.



### RESTORING THE BREATHING

If you discover a victim who is not breathing, it is necessary to start breathing for the victim by forcing oxygen into his or her lungs as soon as possible. This process, called **rescue breathing** or mouth-to-mouth resuscitation, can prevent brain damage and death. By applying this first aid step it will most likely start the victim breathing independently; but if not, continue it until you are replaced by a qualified person or medical help arrives. When you are giving mouth-to-mouth resuscitation to a victim, you are a life-support system!

The following steps describe how to give mouth-to-mouth resuscitation to adults.

Procedures that are different for infants and small children are italicized.

1. Roll the victim gently over if he or she is not already facing up. Open the mouth and check to see if it is clear. Using a hooked finger, sweep out anything you find in the mouth, being careful not to push anything down the throat.
2. Tilt the victim's head back sharply by pressing down on the forehead and lifting on the jaw. This straightens out the passageway to the victim's lungs. *For infants and small children, do not tilt the head back. Instead, place a finger under the chin and lift it slightly.*



3. Keeping the victim's head tilted sharply back, pinch the nose closed, cover the victim's mouth completely with your mouth, and give the victim two full breaths. *For infants and small children, do not pinch the nose closed. Instead, cover both the mouth and nose with your mouth and give small, slow, gentle breaths.* Each breath should last 1 to 1 1/2 seconds. Pause between breaths to let the air come out of the victim and to breathe in yourself. If the victim's chest does not rise when you breathe into his or her lungs, reposition the head slightly

farther back and repeat the breaths. If the victim's chest still does not rise, perform abdominal thrusts to clear the airway as described in the previous section, "Clearing the Airway of an Unconscious Victim," then repeat the breaths.



4. After the two breaths, listen and feel for breathing by placing your cheek close to the victim's mouth. At the same time, check the victim's pulse by placing two fingers in the groove of the neck next to the Adam's apple. This is the location of the carotid artery, which normally produces a strong pulse.



5. If there is no pulse, start CPR immediately as described in the next section.
6. If there is a pulse but no breathing, continue mouth-to-mouth resuscitation at the rate of one breath every 5 seconds or 12 times a minute. *For infants and small children, give one slow breath every 3 seconds.*

- If the victim starts to breathe, stop mouth-to-mouth resuscitation and let the victim breathe on his or her own. Check for other injuries, treat as required, and observe the victim closely until medical help arrives.

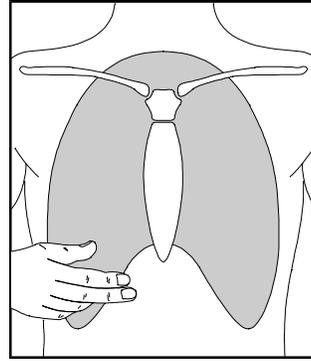
## CARDIOPULMONARY RESUSCITATION (CPR)

As in mouth-to-mouth resuscitation, when you perform CPR, you are a life-support system for the victim. CPR is a first aid procedure performed to restore breathing and heart-beat. It is a combination of mouth-to-mouth resuscitation and a procedure known as closed chest heart massage. Mouth-to-mouth resuscitation supplies oxygen to the lungs, while the closed chest heart massage manually pumps blood through the victim's body, circulating it to the heart and brain. These actions help keep the heart and brain alive until the heartbeat is restored or medical help arrives.

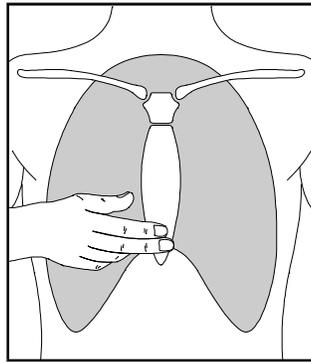
CPR can be performed by a single rescuer or by more than one rescuer, since CPR can be tiring and is easier if two rescuers are available. The CPR procedures discussed in this lesson are for a single rescuer. Before beginning CPR, you should turn the victim face up, clear the airway, give two full breaths as described in mouth-to-mouth resuscitation, and check for a pulse. Only proceed if there is no pulse, and therefore, no heartbeat present.

### PERFORMING CPR ON AN ADULT

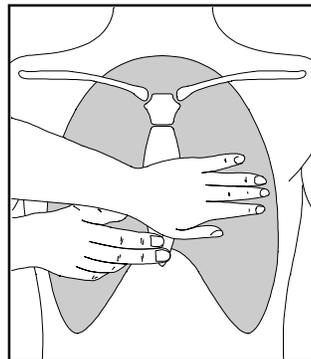
- With the middle and index fingers of the hand nearest the victim's legs, locate the lower edge of the rib cage on the side of the victim's chest closest to you.



- Slide your fingers up the edge of the rib cage to the notch at the lower end of the breastbone. Place your middle finger in the notch and the index finger next to it on the lower end of the breastbone.

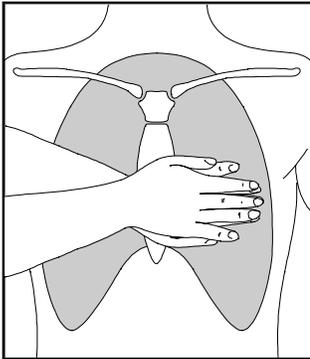


- Place the heel of the hand nearest the victim's head on the breastbone next to the index finger of the hand used to find the notch.



- Place the heel of the hand used to find the notch directly on top of the heel of the other hand. Only let the heel of your hand touch the victim's chest; keep your fingers lifted off of the victim's chest. If you place your

hands correctly, they will be positioned slightly above the lowest part of the breastbone, known as the xiphoid process. Avoid pressing on the xiphoid process because it breaks easily.



5. Position your shoulders over your hands, with elbows locked and arms straight.



6. Press down on the breastbone 1 1/2 to 2 inches at a very quick, continuous rate. This squeezes the victim's heart against the spine and forces blood through the body.
7. While compressing, count aloud "one and two and three and four..." until you get to 15. It should take you about 10 seconds to do 15 compressions. Push down as you say the number and release the pressure as you say "and." Compress up and down smoothly without removing your hands from the chest.

8. After the fifteenth compression, give the victim two full breaths. Be sure to pinch the nose closed and tilt the victim's head back to straighten the airway. Then return to the chest compression.
9. When you complete four cycles of 15 chest compressions and two breaths, check for a pulse again. If there is no pulse, continue CPR.

#### *PERFORMING CPR ON AN INFANT*

1. Place your hand closest to the infant's head gently on the infant's forehead and leave it there throughout the procedure.
2. Place the middle and ring fingers of the hand nearest the infant's legs on the infant's breastbone about one finger width below the infant's nipples.
3. Give five compressions with those two fingers at a rapid pace, pushing the chest down about 1/2 to 1 inch.
4. Follow the five compressions with one breath as described in the italicized text in Step 3 of mouth-to-mouth resuscitation. Rapidly repeat the five compressions and one breath twenty times a minute until breathing and heartbeat resume.

#### *PERFORMING CPR ON A CHILD*

1. As with an adult, find the notched center of the child's ribcage with the hand closest to the child's legs. Measure two finger widths above the notch using the other hand, and then place the heel of the hand used to find the notch on the child's breastbone above the two fingers.
2. Place the hand that you used to measure two finger widths gently on the child's

forehead and leave it there throughout the rest of the procedure.

- Using the heel of your hand and keeping your fingers off of the child's chest, give five compressions 1 to 1 1/2 inches deep, followed by one breath as described in the italicized text in Step 3 of mouth-to-mouth resuscitation. Repeat this sequence twelve times a minute until breathing and heartbeat resume.

## HEART ATTACKS

A **heart attack** occurs when the blood supply to part of the heart muscle is severely reduced or stopped. That happens when one of the coronary arteries (the arteries that supply blood to the heart muscle) is blocked by an obstruction or a spasm. Common signs and symptoms so of a heart attack include:

- Uncomfortable pressure, fullness, squeezing, or pain in the center of the chest that lasts more than a few minutes or that goes away and comes back.
- Pain spreading to the shoulders, neck, or arms.
- Chest discomfort with lightheadedness, fainting, sweating, nausea, or shortness of breath.

When a person's heart stops beating, the victims is said to be in cardiac arrest. Cardio-pulmonary resuscitations (CPR) can keep the individual alive. If a person has a heart attack, call Emergency Medical Services (EMS). Monitor the ABC's and give CPR as necessary.

## STROKE

A **stroke** occurs when blood vessels that deliver oxygen-rich blood to the brain ruptures or when a blood clot forms and blocks the flow of blood in the brain. Common signs and symptoms of a stroke include:

- Paralysis on one side of the body
- Blurred or decreased vision, pupils of unequal size
- Problems speaking, slurred speech
- Difficulty breathing
- Mental confusion
- Dizziness or loss of balance
- Sudden, severe, or unexplained headache
- Loss of consciousness

If a person has a stroke, call EMS. Lay the victim down on one side and cover with blanket. Monitor the ABC's and give CPR as necessary.

## AUTOMATED EXTERNAL DEFIBRILLATORS (AED)

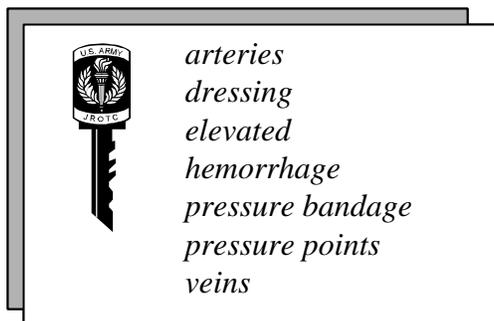
Recently there has been a breakthrough in how Emergency Medical Technicians (EMTs) treat victims of sudden cardiac arrest. The **Automated External Defibrillator (AED)** is a device that uses a computer chip to analyze the heart rhythm and determines whether a shock is needed. This device allows victims suffering a sudden cardiac arrest a greatly improved chance of survival. Because of the ease of operation, people can be trained in AED use in a few hours and some say the techniques are easier to learn than CPR. Many AEDs offer voice prompts, which provide operators with clear and concise instructions. Most AEDs have only three buttons: On/Off, Analyze, and Shock. Many airlines have installed AEDs on all their planes, and several cities are locating them in areas where there are large concentrations of people, such as malls, arenas, and stadiums.

## CONCLUSION

This lesson presents the correct techniques for dealing with the most life-threatening conditions of an accident victim — loss of breathing and heartbeat. Use the letters A-B-C to remind yourself of the first problems

to check for on an injured person: **A**irway blocked, loss of **B**reathing, and lack of **C**irculation. Perform the Heimlich maneuver to clear a victim's airway, mouth-to-mouth resuscitation to restore breathing, and CPR to restore circulation (heartbeat). For the best and safest results, take a class from a qualified instructor before performing mouth-to-mouth resuscitation and CPR on an injured person.

## LESSON 3: CONTROLLING BLEEDING



### INTRODUCTION

In an accident situation, you may encounter injured persons bleeding from wounds such as scrapes, cuts, punctures, or tears or gashes in the skin. The deeper a wound goes, the more serious it is. Mild wounds to the outer layer of skin do not bleed heavily but still require cleaning to avoid infection. Deeper wounds in which **arteries** and **veins** are cut can be life-threatening. These kinds of wounds may involve great amounts of blood, and blood may often pulse, or spurt out of the wound. Severe bleeding, or **hemorrhage**, can result in shock or death if not treated promptly. Stopping the loss of blood in these cases is essential. If a victim loses too much blood, even CPR will not keep the person alive, because there will not be enough blood to deliver oxygen from the lungs to the body.

### TYPES OF BLEEDING

There are three types of bleeding:

- Arterial bleeding is the loss of blood from an artery. Characterized by bright red blood that spurts with each heartbeat, arterial blood loss is severe and hard to control. Give it first priority for treatment.

- Venous bleeding is blood loss from a vein. Venous bleeding is characterized by a steady flow of dark blood.
- Capillary bleeding is the loss of blood from the smallest blood vessels, the capillaries, and is usually characterized by a slow flow of blood.

First aid treatment in all of these cases includes stopping the flow of blood and preventing infection.

### DIRECT PRESSURE

In most cases, applying continuous, direct pressure to a wound is the best way to control bleeding. To apply direct pressure, place a **dressing** over the wound. A dressing should be:

- Sterile; If a sterile dressing is not available, use a clean cloth (a washcloth, towel, or handkerchief).
- Larger than the wound.
- Thick, soft, and compressible so pressure is evenly distributed over the wound.
- Lint free.

If a clean cloth or gauze is not available, use clothing or your bare hands or fingers — whatever is the cleanest. Continue applying pressure and bleeding should begin to slow or stop within thirty minutes.

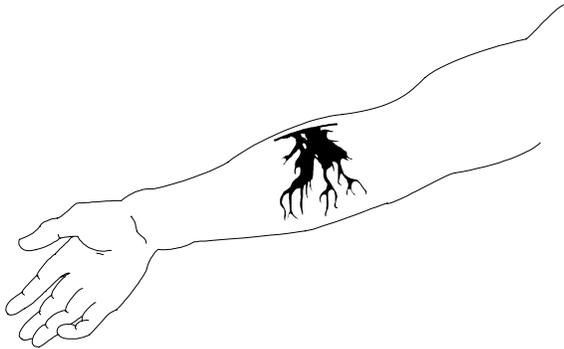


## STOPPING INFECTION

Even the slightest wound requires immediate cleansing. The best way to clean wounds is to wash them with soap and water. At home, use water from the faucet. On a hike, use water from a canteen or the clear running water of a stream. If available, use an antiseptic cleanser instead of soap. Wait until the skin around the wound dries, then put on a bandage. If available, apply an antiseptic cream to the wound before bandaging it.

For a minor wound, cleaning and bandaging it is probably all that is required. Deep wounds, wounds made by animal or human bites, and wounds contaminated by dirt, rust, or other items require medical treatment. Clean and bandage these wounds, and get medical assistance as soon as possible. If a wound contains glass or other objects stuck into the flesh, do not remove them unless they wash out of the wound easily.

## CONTROLLING BLEEDING TO EXTREMITIES



In most cases, direct pressure is the best way to stop bleeding of wounds to the extremities. As you apply direct pressure, keep the injured limb **elevated** above the heart to slow the flow of blood out of the body.

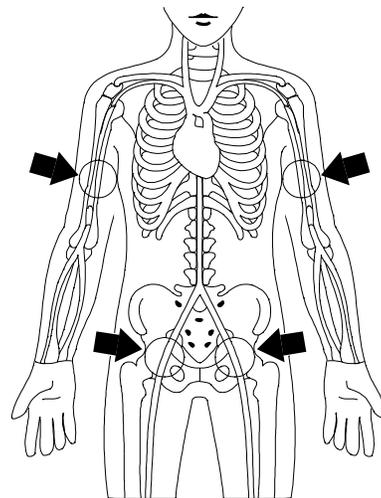
After initially applying direct pressure, you may want to apply a **pressure bandage** by applying a bandage snugly, using overlapping turns with a roll of gauze. Do not tie the

pressure bandage so tightly that it restricts blood flow to the lower part of the limb. If fingertips or toes appear bluish, or if there is no pulse below the dressing, loosen the material used to secure the dressing immediately. Once you apply a pressure bandage, only qualified medical personnel should remove it.

## PRESSURE POINTS

In case of severe bleeding that does not slow or stop using direct pressure, finger pressure may be applied to the **pressure point** on the injured limb between the wound and the heart. Pressure points are locations on the body where arteries are close to the surface. By applying pressure at these points, you slow or stop the flow of blood through the artery.

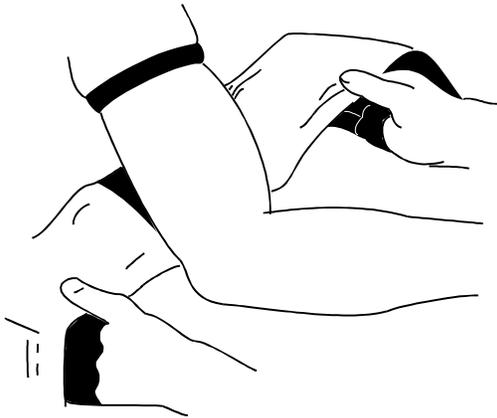
The principal pressure points for the arms and legs are shown in the following illustration. As with mouth-to-mouth resuscitation and CPR, it is better to have first aid training on pressure points before actually using this technique to stop bleeding. If done incorrectly, you may damage healthy tissue fed by the artery you are constricting.



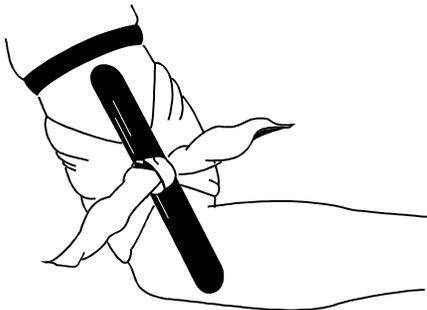
## TOURNIQUET

If heavy blood loss continues, as from amputation, it may be necessary to use a tourniquet. Caution: Since a tourniquet is a constricting band that stops the flow of blood below it, it can kill the limb to which it is applied. *Therefore, only use a tourniquet if no other method works to stop the bleeding and you believe the injured person's life is in danger.* To apply a tourniquet:

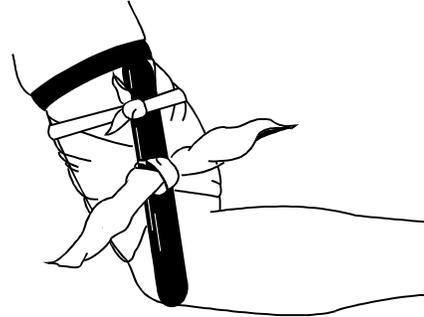
1. Fold a cloth until it is approximately two inches wide and long enough to go around the injured limb.



2. Tie the material in a loop and position it two to four inches above the wound, but not over a joint.
3. Pass a rigid object, such as a stick, under the tourniquet loop and twist it until the bleeding stops.



4. Tie off the end of the stick with another piece of cloth or string to prevent it from unwinding.



5. Mark the victim's forehead with a "T" to alert medical personnel that you have applied a tourniquet.

If it is necessary to cover the victim with a blanket, do not cover the tourniquet to make it easier for medical personnel to spot. Once you apply a tourniquet, do not loosen or remove it. As with a pressure dressing, only qualified medical personnel should remove a tourniquet. *Remember, use a tourniquet only as a last resort when all other attempts to stop the bleeding fail.*

## CONTROLLING BLEEDING TO THE HEAD AND TORSO

### SCALP INJURIES

For wounds to the scalp, use a pressure dressing. If brain tissue is exposed, tie the dressing loosely over the wound. Do not press the brain tissue back into the open wound.

### *FACIAL INJURIES*

Control bleeding from facial wounds by using a pressure bandage. Position the victim to prevent him or her from breathing blood. Victims who have sustained a severe blow to the head should be kept under close observation as they may have brain damage and could require rescue breathing.

### *CHEST INJURIES*

A chest injury may result in an open chest wound, which could lead to air leaking from a lung and the collapse of a lung. If conscious, have the victim breathe out and apply some material such as plastic wrap or foil to the wound. Bind a pressure bandage tightly to the wound to prevent leakage of air and slow down blood loss. Have the victim sit up, if possible, or lay that person on the injured side.

### *ABDOMINAL INJURIES*

When an open abdominal wound has exposed visceral (internal) organs, cover the abdomen loosely with dressings. Do not force the organs back into the body cavity and do not give victims with abdominal wounds any food or water.

### **CONCLUSION**

Severe bleeding from wounds in which arteries or veins are cut can be life-threatening to an injured person. Therefore, controlling the loss of blood is second in importance only to restoring breathing and circulation. In most cases, applying direct pressure to a wound is the best way to control bleeding. Cleansing a wound to stop infection is also extremely important. If you know these two facts, and the other details on controlling bleeding to the extremities, head, and torso, you can successfully accomplish the second life-saving step in an emergency situation.

## LESSON 4: TREATING FOR SHOCK AND IMMOBILIZING FRACTURES



*clammy*  
*closed fracture*  
*dislocation*  
*fainting*  
*ligament*  
*open fracture*  
*splint*  
*sprain*  
*strain*  
*trauma*

### INTRODUCTION

Whenever you treat someone for a severe injury, you must also treat them for shock. Even if an injured person shows no signs of shock, treat them for shock anyway, since shock can follow all major injuries. By treating for shock, you lessen its severity. If left untreated, shock can become life-threatening. There are cases of people who died from shock even though their injuries would not have killed them. Therefore, knowing how to deal with shock is a very important part of first aid.

After treating for shock, take care of broken bones or suspected broken bones. If there is a question of whether or not a bone is broken, treat it as if it were broken anyway. Follow the first aid procedures for **splinting** a fracture carefully, since more damage can occur if a fracture is handled improperly.

### SHOCK

Shock from an injury is different from electric shock, although it can be brought on by electric shock, as well as blood loss, burns, psychological **trauma**, heart attack, and other injuries involving pain. Shock disrupts circula-

tion. In an attempt to correct damage from an injury and to protect its blood supply, the body routes blood away from outer tissues to organs inside the body. This may keep adequate blood, and therefore oxygen, from reaching the brain. In severe cases, the injured person can lose consciousness and blood supply to vital organs like the heart, causing death.

Shock usually occurs within the first hour after a severe injury. How severe shock becomes depends on several factors including the type of injury, how much blood is lost, and characteristics of the injured person's nervous system. Increased pain, rough handling, delayed treatment, and emotional reactions such as fear and panic can worsen shock.

### SIGNS OF SHOCK

When a victim is in shock, the skin is pale or bluish and cold to the touch. For a victim with dark skin, check the color of the mucous membranes on the inside of the mouth or under the eyelids, or check under the nail beds. The skin may be **clammy** from perspiration. As listed in the first chapter of this unit, other signs that may develop in the early stages of shock are as follows:

- Restlessness or nervousness
- Thirst
- Bleeding
- Confusion or loss of awareness
- Breathing rapidly
- Nausea and/or vomiting
- Blotchy or bluish skin around the mouth and lips
- **Fainting**

Fainting, or “blacking out,” is a mild form of shock caused by a lack of blood to the brain. Fright, bad news, breathing polluted air, or standing too long can result in fainting.

Before fainting occurs, a shock victim may turn pale, shake, or suddenly fall to the ground.

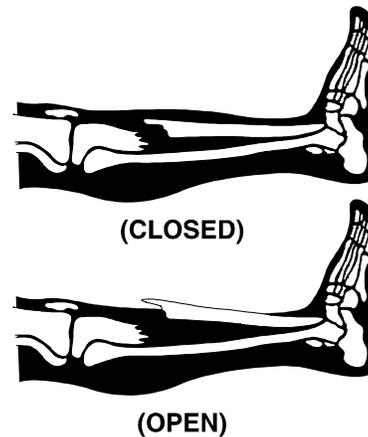
### TREATING SHOCK

Procedures for treating shock include improving circulation of the blood, ensuring an adequate supply of oxygen, and maintaining normal body temperature.

1. Position the victim on his or her back, unless a sitting position allows easier breathing. If the victim is vomiting, position that person on the side to let fluid drain from the mouth.
2. Elevate the victim's feet higher than the heart, unless the victim has an abdominal or chest wound or an unsplinted leg fracture.
3. Loosen clothing that may bind around the neck and waist.
4. Keep the victim from becoming cold or overheating.
5. Reassure the victim, and do not give him or her any food or drink. However, if you know that help is not going to arrive for over an hour, give the victim small amounts of fluids at room temperature every fifteen minutes. Add an eighth of a teaspoon of salt, if available, to each half glass of fluid.

### FRACTURES

Bone fractures resulting from falls are common injuries. A closed or simple fracture is a break in the bone that does not penetrate the skin. An open or compound fracture occurs if the sharp edges of a splintered bone have cut through the skin.



In the case of an open fracture, it is obvious that a bone is broken. In the case of a closed fracture, indications of a broken bone include swelling, discoloration, and unusual positioning of the limb in question.

### DO'S AND DON'TS

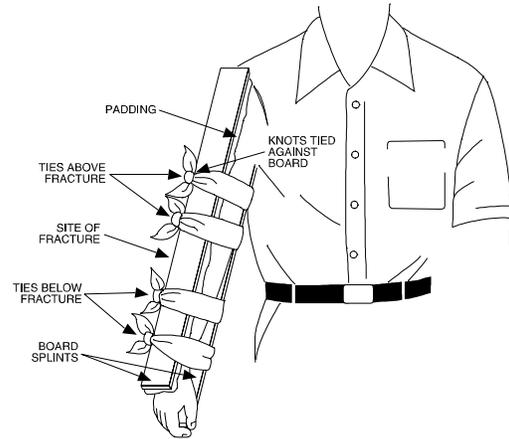
When treating fractures, what you do is important, and what you don't do is equally as important.

- ⇒ **Do** call for medical assistance immediately.
- ⇒ **Do** keep the victim from moving.
- ⇒ **Do** treat for shock while waiting for medical assistance.
- ⇒ **Don't** try to set the bone.
- ⇒ **Don't** put the victim in a car to rush him or her to a hospital. That is the easiest way of turning a closed fracture into an open one.
- ⇒ **Don't** give stimulants if there is severe bleeding.

## SPLINTS

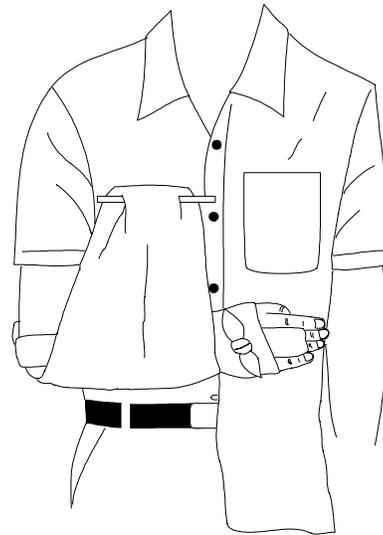
The most important action to take when dealing with a fracture is to immobilize the injured bone to prevent further damage. The best way to immobilize bones is with splints. For open fractures, control the bleeding before splinting. Keep the exposed bone moist by covering it with a moist, sterile dressing. The rules of splinting are:

1. Pad all splinting material. Make splints from sticks, boards, cardboard, rolled newspaper, or any other unbendable material.
2. Splint the broken leg or arm in the position in which you found it. Do not try to straighten or reposition the fracture. In most cases, support an arm from above and below and a leg from the sides.
3. Use splinting material that is long enough to immobilize the joint above and below the break. For example, immobilize the ankle and the knee for a fracture in the vicinity of the calf.
4. Tie the splints above and below the suspected fracture. Make two ties above and two below the break. Never make a tie directly over the break.
5. Tie all knots on the outside of the splints.
6. Check that circulation is not restricted by splints tied too tightly.

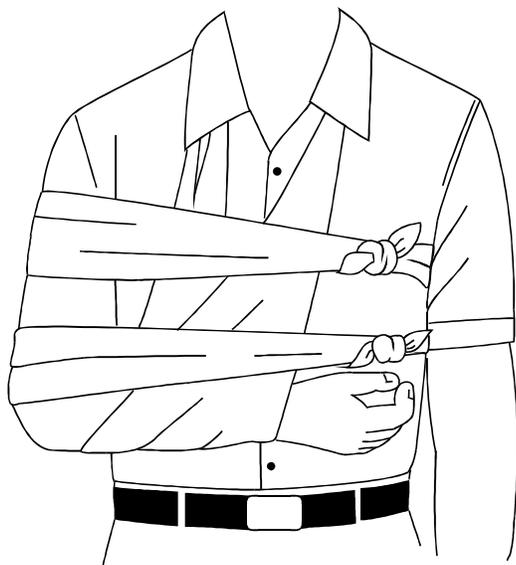


## SLINGS

For arm fractures in which the entire arm is not splinted, use a **sling** to support the weight of the arm. If necessary, pin the victim's shirttail up to serve as a field expedient sling.



If no splinting material is available, immobilize a leg fracture by placing padding between the injured leg and the uninjured leg and tying them together. Using the uninjured leg as the splint, draw two ties above and two below the suspected break. The following illustration shows how to immobilize a broken arm against the victim's body if no splinting material is available.



## JOINT INJURIES

### *DISLOCATIONS*

A **dislocation** occurs when a joint comes apart and stays apart with the bone ends no longer in contact. The shoulders, elbows, fingers, hips, kneecaps, and ankles are the joints most frequently affected. Dislocations have signs and symptoms similar to those of a fracture: severe pain, swelling, and the inability of the victim to move the injured joint. The main sign of a dislocation is deformity; its appearance will be different from that of a comparable uninjured joint. The procedures for treating a dislocation include:

1. Do not try to set the joint. Immobilize and support the injured joint as if treating for a fracture.
2. Use the RICE procedures (see below).
3. Seek medical attention.

### *SPRAIN*

A **sprain** is an injury to a joint in which the ligaments and other tissues are damaged by violent stretching or twisting. Attempts to move or use the joint increase the pain. The skin

about the joint may be discolored because of bleeding from torn tissues. It is often difficult to distinguish between a severe sprain and a fracture, because their signs and symptoms are similar. If you are not sure whether an injury is a sprain or a fracture, treat it like a fracture. It is better to immobilize a sprain than to take the chance of a victim sustaining further damage from an unsplinted closed fracture.

Treatment for a sprain consists of **rest, ice, compression, and elevation (RICE)**. Seek medical attention. See below for more details on RICE.

## MUSCLE INJURIES

### *STRAIN*

A muscle strain, or muscle pull, occurs when a muscle is stretched beyond its normal range of motion, resulting in the muscle tearing. Signs and symptoms include: sharp pain, extreme tenderness when the area is touched, slight swelling, and difficulty moving or using the affected part. Treatment for a strain consists of rest, ice, compression and elevation (RICE).

### **RICE PROCEDURES FOR BONE, JOINT AND MUSCLE INJURIES**

RICE is the acronym for the first aid procedures — rest, ice, compression, and elevation — for bone, joint, and muscle injuries. What is done in the first 48-72 hours following such an injury can greatly affect the recovery.

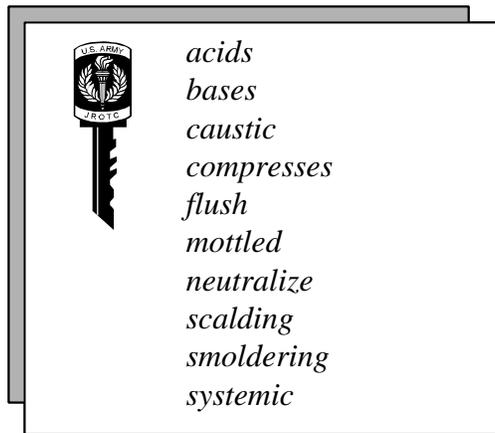
1. Rest — Injuries heal faster if rested. Rest means the victim stays off the injured part.
2. Ice — An ice pack should be applied to the injured area for 20 - 30 minutes every 2-3 hours during the first 24 - 48 hours. When the skin becomes numb, remove the ice pack.

3. **Compression** — Compression of the injured area may squeeze some fluid and debris out of the injury site. Compression limits the ability of the skin and of other tissues to expand. Applying compression may be the most important step in preventing swelling. The victim should wear an elastic bandage continuously for 18 - 24 hours.
4. **Elevation** — Gravity has an important effect on swelling. The force of gravity pulls blood and other tissue to the lower parts of the body. Once fluids get to your hands or feet, they have nowhere else to go. Thus, those parts of the body tend to swell the most. Elevating the injured areas, in combination with ice and compression, limits circulation to that area, which in turn helps limit internal bleeding and minimize swelling. Whenever possible, elevate the injured part above the level of the heart for the first 24 hours after an injury.

## **CONCLUSION**

This lesson explained the first aid procedures for treating shock and fractures. Remember that shock can follow severe injuries and can be life-threatening if left untreated. Treating a victim for shock involves improving circulation, ensuring an adequate oxygen supply, and maintaining normal body temperature. For fractures, the most important action to take is immobilizing the broken bone using splints. By following these first aid procedures, you can lessen the severity of shock caused by an injury and ensure that no further damage occurs to a victim because of a broken bone, sprain, or strain.

## LESSON 5: FIRST AID FOR BURNS



### INTRODUCTION

Burns can result from sources of heat, electricity, and chemicals. In situations where people are injured by these sources, your first aid knowledge should include how to treat them. This lesson covers different types of burns, how to treat them, and ways to prevent them.

### BURNS

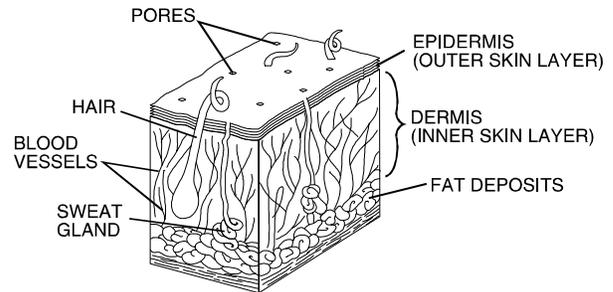
There are several types and degrees of burns that require different treatments. Heat, electricity, and chemicals can produce burn injuries with their severity depending on the burn's depth, size, and location. Burns can be painful and may result in shock and infection. They can be very serious if they are spread over a large area of the body, there are other injuries involved, or the victim is very young or very old.

### DEGREES OF BURNS

For burns caused by heat sources, there are different degrees (first, second, or third) based on the burn's depth. The deeper the burn, the more severe and the higher the degree. All electrical burns are third degree.

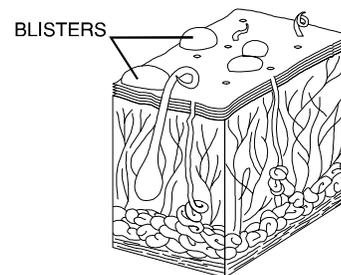
### Characteristics of First-Degree Burns

- Least severe
- Injure only the top layer of skin



- Redden the skin
- Produce mild swelling
- Cause pain due to irritated nerve endings
- Heal quickly and completely if properly treated
- Caused by brief contact with hot objects, brief exposure to hot water or steam, and overexposure to sun (light sunburn) or wind

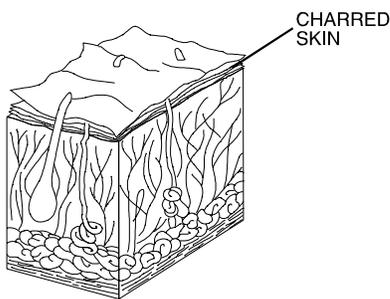
### Characteristics of Second-Degree Burns



- Involve deeper layers of skin
- Cause skin to turn red and/or **mottled**
- Appear moist and oozing from the loss of fluid through damaged skin layers
- Produce blisters and swelling
- Usually the most painful type of burn because nerve endings are still intact even though tissue damage is severe

- Burns covering a large area may cause shock due to extensive loss of fluid from the burned skin
- Smaller second-degree burns that are properly treated should heal within two weeks with little or no scarring
- Caused by a deep sunburn, prolonged contact with hot objects, **scalding**, and flash burns from flammable liquids suddenly bursting into flame

### *Characteristics of Third-Degree Burns*



- Deepest and most severe type of burn
- May look white or charred (may appear to be a second-degree burn at first)
- Result in deep tissue destruction, reaching all layers of the skin and sometimes structures below the skin
- Often cause little or no pain since nerve endings are destroyed
- Often cause shock
- When healed, will be covered by scar tissue
- Caused by immersion in extremely hot water, prolonged contact with flames, and electric shock

### *TREATMENT OF HEAT BURNS*

Treat heat burns based on their degree; therefore, before treating a burn, determine its degree and treat accordingly. When deciding the degree of a burn, in addition to the above descriptions, it may help to know the source of the burn and/or how hot the source was, as well as how long the victim was exposed to it.

If a victim appears to have a combination of burns of different degrees, determine the degree of the most burned part — usually in the middle of the burned area — and treat for that degree. If you are not sure about the degree of a burn, treat it as a third-degree burn.

Keep in mind that the goal of burn treatment is to relieve the victim's pain, prevent him/her from going into shock, and prevent infection of the burned area.



### *Treating First-Degree Burns*

1. Loosen tight clothing and remove jewelry from the burned area before it swells. Have the victim put his/her jewelry in a safe place after removal.
2. Cool the burned part with water by either holding it under cold, running water, pouring cold water over it, immersing it in cold water, or applying cold, wet **compresses** to it. Cooling the burn with water helps remove heat from the skin, relieves pain and swelling, and cleans the injury. Continue this cooling treatment for between 5 and 15 minutes until the pain subsides.
3. Gently pat the burned area dry with a clean cloth.

4. Cover the injury with a sterile bandage or clean cloth to keep air off of it, thereby reducing pain, and to provide protection against infection. Keep the bandage loose to keep pressure off of the injury.
5. Once a first-degree burn is completely cooled, especially a sunburn, use a lotion or moisturizer to relieve pain and prevent drying of the skin.

### *Treating Second-Degree Burns*

1. For second-degree burns, follow steps one through four for treating first-degree burns. If you use running water to cool the injured part, ensure the water is not so forceful that blisters on the burned skin are broken.
2. Elevate the burned part.
3. Ensure the victim drinks plenty of liquids to avoid dehydration.
4. Seek medical treatment for second-degree burns to the face, hands, feet, or genitals, or that are more than two to three inches in diameter.

**Notes:** (1) For extensive second-degree burns, monitor the victim for signs of shock and treat accordingly until he/she receives medical treatment. See Lesson 4 for signs and treatment of shock. (2) For second-degree burns to the face, especially if accompanied by smoke inhalation, the victim may have respiratory burns that can lead to swelling and blockage of his/her airway. Monitor the victim's breathing and treat accordingly until he/she receives medical treatment. See Lesson 2 for monitoring and restoring breathing.

### *Treating Third-Degree Burns*

1. Remove the victim from the source of heat if he/she is still in contact with it. (**Note:** See the next section for removing a victim from a source of electricity.)
2. Next, call for Emergency Medical Services (EMS). All third-degree burns require medical treatment regardless of their size. Until the victim receives treatment, follow steps 3 through 9.
3. Ensure that the victim is breathing. If not, begin mouth-to-mouth resuscitation. See Lesson 2 for mouth-to-mouth resuscitation procedures. If the victim is breathing, continue with steps 4 through 9.
4. Remove any clothing that is still **smoldering** to stop further burning. If the victim is wearing jewelry that is near or on a burned area, remove it *if it comes off easily*. Place the jewelry in the victim's pocket, purse, etc., if available. If not, reassure the victim that you will give his/her jewelry to emergency medical personnel when they arrive.
5. If necessary, expose the burned area by cutting and gently lifting away any clothing. If any cloth sticks to the burn, leave it in place. **Note:** If you are in a chemically contaminated area, do not expose the burned area; simply apply a dressing over the victim's clothing.
6. Cover the burned area loosely with cool, moist compresses, sterile bandages, or clean cloth. **Note:** Unlike treatment for first- and second-degree burns, do not cool a third-degree burn with water, since this can increase the risk of shock.
7. Elevate the burned part.

8. Treat the victim for shock. See Lesson 4 for procedures for treating shock. Pay special attention to the victim's body temperature, which can change rapidly due to the skin being burned.
9. Monitor breathing of victims with burns to the face and burns resulting from fire accompanied by smoke inhalation. Treat accordingly.

#### *“Don'ts” When Treating Burns*

- Do not put butter, oil, or grease on a burn; they can keep heat in the burn and cause more damage, as well as increase the chance of infection.
- Do not use cotton or cottony bandages on burns as they may stick to the injury.
- Do not put ice or ice water on a burn; this can result in frostbite and cause more damage to the skin.
- Do not break any blisters that have formed; blisters help protect against infection.
- Do not put pressure on a burn.
- Do not try to remove stuck clothing, debris, or loosened skin from a burn.
- Do not try to clean a wound with soap, alcohol, or any other antiseptic product; only water should be used and only on first- and second-degree burns.
- Do not let a victim walk on burned feet even if he/she tells you it does not hurt; third-degree burns can cause little pain since nerved endings are destroyed, but damage is severe and pressure from walking will only increase it.

#### *PREVENTION OF HEAT BURNS*

- Use caution when handling matches and starting a fire, particularly with a flammable liquid.
- If you have young brothers and sisters, store matches out of their reach.
- Use caution around hot liquids, steam, and heating and cooking equipment.
- Ensure hot tap water is not scalding before stepping into a tub or shower or putting your hands under a running faucet.
- Ensure your home has a fire extinguisher and smoke alarms.
- Never use water on an electrical fire; use a chemical fire extinguisher.
- If anyone in your household smokes, remind them not to smoke in bed.
- Keep a box of baking soda in the kitchen to smother grease fires.
- Turn pot handles on the stove so they are not sticking out where someone may bump them in passing.
- For electric cookware, do not let cords hang off the counter, where they can be caught and pull the cookware off as well.
- If a pilot light goes out on a gas appliance, make sure all burners and the stove are turned off and ventilate the area before re-lighting it or before using electrical switches, which make tiny sparks.
- Do not leave flammable items (like newspapers or dishcloths) near the fireplace or on or near the stove.
- Turn off space heaters before going to sleep or leaving the house.
- Know what actions to take if a fire starts in your home and practice them with family members.

## TREATMENT OF ELECTRICAL BURNS



While an electrical shock will often produce only a minor mark on the skin, the injury can be a serious, deep-tissue burn, so treat all electrical burns as third degree. The current from an electrical shock passing through a victim's body can also result in unconsciousness and may slow or stop his or her breathing and/or heartbeat. Therefore, treat electrical shock as a potentially life-threatening injury.

If you believe a person has been electrocuted, assess the situation first *before* touching the victim. He or she may still be in contact with the electrical current, and if you touch him or her, you could become a victim of electrical shock as well. Follow these steps to avoid a double accident and provide first aid treatment:

1. If the victim is still in contact with the source of electricity, stop the current.
  - a. Shut off the electrical current by unplugging a cord, removing a fuse from the fuse box, or turning off the circuit breaker, as appropriate. **Note:** In many cases, just turning off a wall or appliance switch does not stop the electrical flow. Even though you have shut off the electrical current, to be completely safe, move the victim

away from the electrical source before continuing. Proceed to step 3.

- b. If you cannot turn off the electricity or you are outside and the shock is due to a downed power line, either call the power company yourself if you have a phone near you, or if there are other people around, have someone else call the power company. Meanwhile, since it may take you less time to separate the victim from the current than to wait for the power to be cut off, proceed to step 2. Or, if you are alone and/or there is no phone readily available in this situation, proceed to step 2.
2. Separate the victim from the source of electrical current.
    - a. Push the victim off of or away from the source of electricity — or push the source of electricity off of or away from the victim — using a dry non-conducting material (wood, plastic, cardboard) like a broom, stick, or chair. If available, also stand on something dry and non-conducting, like newspaper or a rubber mat, as you disengage the victim.



- b. If pushing does not work, use a dry rope or dry clothing to lift or drag the victim off of or away from the source of electricity. This method works better if there are two rescuers: one to lift the victim off and the other to push the electrical source away.



**Special Precaution:** If the ground is wet, *do not* attempt to move a victim in contact with an electrical current. Water conducts electricity, and you can be electrocuted as well. In this case, the current must be stopped before you can administer first aid.

3. Check the victim's breathing and pulse. Be prepared to administer mouth-to-mouth resuscitation or cardiopulmonary resuscitation (CPR) if the victim's breathing is shallow or nonexistent or his/her pulse is dangerously slow or non-existent. See Lesson 2, for mouth-to-mouth resuscitation and CPR procedures.
4. Once you are sure the victim is breathing, take the time to call EMS if you or someone else has not already done so.
5. Check the victim for two burn sites — one where the electricity entered the body and one where it exited the body. Treat the burns by following steps 4 through 9 for treating third-degree burns, includ-

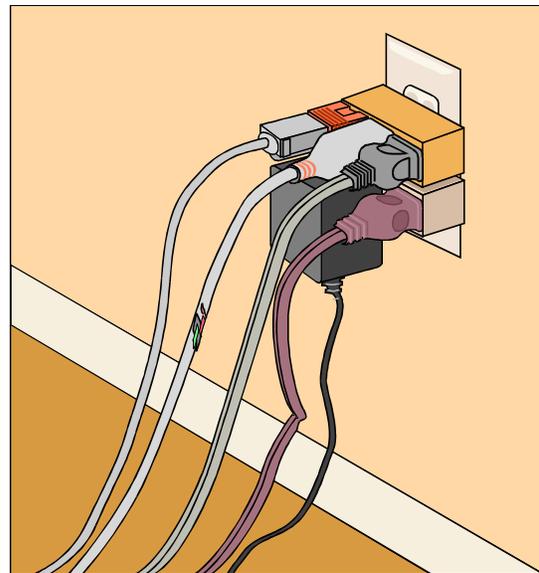
ing treating for shock and monitoring breathing.

### DID YOU KNOW?

About 1,000 people die each year in the United States due to electrical shock.

### PREVENTION OF ELECTRICAL BURNS

- ❑ Do not use electrical appliances in the tub, while showering, or in or near swimming pools.
- ❑ Do not use electrical equipment outdoors if it is raining or the ground is wet.
- ❑ Ensure electrical equipment you use outdoors is made for outdoor use, with three-way ground plugs and heavier wiring.
- ❑ Ensure outdoor electrical outlets have weatherproof covers.
- ❑ If you have very young brothers or sisters, ensure there are child safety plugs in all electrical outlets.
- ❑ Do not overload an outlet by plugging in several appliances in a "piggy-back" fashion.



- ❑ Do not use electrical appliances or equipment that have exposed wiring or frayed cords, or that overheat or create sparks.
- ❑ Do not climb trees that have wires running through or near them.
- ❑ Look for overhead wires before using long tools like tree trimmers, pool skimmers, or ladders.
- ❑ Stay inside during electrical storms; keep away from windows; do not use appliances or the phone, since lightning can travel through wires; and do not take a shower or bath, since lightning can also travel through pipes.
- ❑ If you are caught outside during an electrical storm, avoid trees, poles, and metal objects; find low ground and crouch down.

### TREATMENT OF CHEMICAL BURNS

Chemical burns occur when the skin or eyes come in contact with liquid or dry chemicals that are **caustic** or irritating. Around your house, you may have products like rust and paint removers and drain and cement cleaners that contain **acids** designed to eat away certain materials and **bases** (also called alkalis) used to cut through grease. If used carelessly or improperly, these products may also do the same to your clothes and skin.

The seriousness of a chemical burn depends on the:

- Length of time the chemical is in contact with the skin or eyes
- Concentration of the chemical — the more concentrated, the more damaging
- Temperature of the product containing the chemical — the higher the temperature, the quicker the damage.

Treatment of chemical burns involves stopping the chemical action immediately

by removing the chemical from the skin or eyes and by removing contaminated clothing that can transmit absorbed chemicals to the skin. Treatment will vary depending on the type of chemical involved, so if there are first aid instructions on the label of the chemical product causing the burn, follow those instructions. If not, use the following basic guidelines for treatment.

#### *For chemical burns to the skin:*

1. Depending on the extent of chemical coverage on the victim or in the area, consider wearing gloves and/or safety goggles, if available, to protect yourself from chemical injuries while assisting the victim.
2. Remove any contaminated jewelry or clothing from the victim, including shoes and socks where chemicals can collect.
3. Remove the chemical from the skin.
  - a. *For liquid chemicals*, **flush** them from the contaminated skin with large amounts of cool running water for at least 15 minutes.
  - b. *For dry chemicals*, brush them off the skin using a clean, dry cloth. Take care to keep the chemicals from blowing into your eyes or the victim's eyes, and avoid brushing the chemicals onto your own skin. Then, if large amounts of water are available, flush the contaminated area for at least 15 minutes. If large amounts of water are not available, do not apply any water to the contaminated area, since small amounts of water can react with dry chemicals causing more burning.

**Note:** If the victim says he/she feels the burning has intensified after you have fin-

ished flushing the contaminated area, flush for several more minutes, or longer, as necessary.

4. Cover the burned area loosely with dry, clean bandages or cloth.
5. Minor chemical burns generally heal without further treatment; however, call for Emergency Medical Services for:
  - any chemical burn to the face, hands, feet, genitalia, or joints
  - second-degree chemical burns over two to three inches in diameter
  - all third-degree chemical burns
  - if there is a **systemic** reaction to the chemical burn and/or chemical exposure.

**Note:** (1) For extensive or severe chemical burns, monitor the victim for signs of shock and treat accordingly until he/she receives medical treatment. (2) For a victim with chemical burns to the face or who may have inhaled chemicals, monitor his/her breathing in case of possible respiratory burns and swelling. Treat accordingly until medical help arrives.

*For chemical burns to the eyes:*

1. Position the victim's head so that the injured eye is lower than the uninjured eye. This will prevent the chemical from getting into the uninjured eye. If both eyes are injured, proceed to Step 2.
  2. If there is only one injured eye, hold the eyelids of the injured eye open and flush with water from the inner corner of the eye (closest to the nose) to the outer corner (closest to the ear). Flush for at least fifteen minutes. If both eyes are injured, flush both at the same time.
3. To keep the victim from moving his/her injured eye(s), have the victim close both eyes, then cover them with cloth pads or gauze taped loosely into place. Since eyes move together, both eyes must be closed and covered to keep the injured eye still.
  4. Call for Emergency Medical Services or transport the victim to the emergency room.

### *“Don’ts” When Treating Chemical Burns*

Follow the “don’ts” listed previously in “*Don’ts*” When Treating Burns. In addition, do not put any other chemicals on a chemical burn in an attempt to **neutralize** the chemical causing the burn — for example, putting an acid on an alkali and vice versa.

### *PREVENTION OF CHEMICAL BURNS*

- ❑ Before using any chemical product, read the label — including precautions or warnings — then follow the instructions for use.
- ❑ If you have younger brothers or sisters, ensure chemical products are stored out of their reach.
- ❑ Use chemical products in a well-ventilated area.
- ❑ Do not mix different chemical products; they may react with each other causing hazardous conditions; for example, mixing bleach and ammonia gives off dangerous fumes.
- ❑ To avoid confusion and accidental misuse of chemical products, leave them in their original containers with their labels intact.

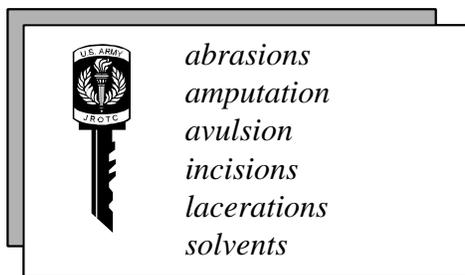


## CONCLUSION

You have just learned important procedures for treating burns well as when to

apply basic first aid and life-saving skills in these situations. Remember that while it is important to administer first aid treatment as quickly as possible in most situations, some rescue situations require careful assessment before you jump in to save someone, so that you do not become a victim yourself. Remaining calm, thinking logically and clearly, and knowing what steps to take and when to take them will help you to successfully perform first aid. In addition, this lesson provided many tips on how to prevent accidents from occurring in the first place.

## LESSON 6: FIRST AID FOR POISONS, WOUNDS, AND BRUISES



### INTRODUCTION

Whenever there are small children left alone in the kitchen, accidents can happen, especially when cleaning products are left out in the open. The first section of this lesson introduces the treatment and prevention of injury from poisons. As an addition to your first aid abilities, the lesson ends with a discussion of different types of wounds and their treatment, as well as the treatment of bruises.

### POISONS

As consumers, we buy more than a quarter of a million different household products — materials used in and around the house for medication, cleaning, cosmetic purposes, exterminating insects, and killing weeds. These items are valuable in the house and for yard maintenance, but misuse, especially when products are used in inappropriate applications or quantities, can cause illness, injury, and even death.

Each year more than 6,000 people die and an estimated 300,000 suffer disabling illnesses as a result of unintentional poisoning by solid and liquid substances. Poisonings can happen to anyone, at any time, in any situation.

Poisonings at home, however, can be prevented. While child-resistant packaging has greatly reduced the number of fatalities among

children under five years of age, parents, grandparents, and other caregivers must still be cautious. Following label directions for all products, including medication dosages, and proper storage of potentially toxic products are important precautions to heed.

- Poisonings from solids and liquids such as drugs, medicines, poisonous houseplants, and commonly recognized poisons caused 6,300 deaths in the home in 1998 alone.
- An additional 500 deaths in the home in 1998 were due to poisonings from gases and vapors such as carbon monoxide.
- These deaths are not all among children. Another age group at risk is adults age 25 through 44. Many adults are unintentionally poisoned when they do not follow label directions on medications or household chemicals.

Poisoning is the effect of one or more harmful substance on the body. Poisons can be inhaled or ingested. Fortunately, most poisonings happen with products of low toxicity or with amounts so small, the severe poisoning rarely occurs. However, the potential for severe or fatal poisoning is always present.

### *INHALED POISONS*

Inhaled poisoning occurs when a person breathes a poisonous substance into his/her lungs. Inhaled poisons include:

- Smoke
- Gas used in outdoor cooking equipment and appliances in homes and recreational vehicles
- Hazardous fumes from household products such as paint and paint thinners, gasoline, **solvents**, and glues, as well as from chemicals used in industrial processes

- Carbon monoxide, which is always produced by wood, coal, and charcoal fires, and by gasoline engines, can also be produced by gas, oil, and kerosene appliances, such as furnaces, space heaters, water heaters, and stoves

Carbon monoxide, in particular, is a very dangerous poisonous substance, because it is odorless, colorless, and tasteless, making it difficult to detect. When a person inhales carbon monoxide, it replaces oxygen in the blood, which results in oxygen starvation throughout the body. Exposure to low amounts of carbon monoxide can cause flu-like symptoms; continued exposure can cause permanent brain, nerve, and heart damage; exposure to very high concentrations can kill a person in a few minutes.

Running a car engine in a closed garage, using a charcoal grill indoors, and burning a fire in a fireplace with a blocked chimney can all result in carbon monoxide poisoning. In addition, since carbon monoxide forms when there is a lack of oxygen resulting in incomplete fuel combustion, operating fuel-burning equipment without an adequate supply of oxygen (proper ventilation) can result in carbon monoxide poisoning. For example, hundreds of people in the United States each year suffer carbon monoxide injuries from using portable heaters, lanterns, and camping stoves inside tents, campers, and vehicles.

### *SYMPTOMS OF INHALED POISONING*

Symptoms of inhaled poisoning may not show up immediately. If you suspect inhalation poisoning, keep the victim under observation. If you know the victim has inhaled a poisonous chemical, get medical help whether or not symptoms are present. Symptoms will vary depending on the type and amount of poison inhaled, but can include any of the following:

- Dizziness
- Weakness
- Drowsiness
- Headache
- Mental confusion
- Breathing difficulties
- Heartbeat irregularities
- Unusual breath odor
- Discoloration of the lips and mucous membranes
- Nausea
- Vomiting
- Rashes or burns on the skin
- Unconsciousness

### *TREATMENT FOR INHALED POISONS*

Before rushing in to rescue a victim in a smoke-, gas-, or fume-filled environment, quickly assess the situation so that you do not end up a victim as well. If the poisonous substance is overwhelming and the danger to you is too great, do not attempt to rescue the victim unless you have been trained for rescue in this type of situation. Immediately call EMS and stay clear of danger.



However, if after assessing the situation you believe you can safely remove the victim from the poisonous environment, do so by following these guidelines.

1. If you are alone, call for help first before attempting the rescue. This will notify others of the situation — a precaution that will ensure help is on its way in case you are also overcome by the poison.

2. Take several deep breaths of fresh air, then take a final deep breath and hold it as you go in. If available, a damp cloth held over your nose and mouth is a good safety precaution. **Note:** Do not use light switches, light a match, or use any other equipment or appliance that produces flames or sparks while you are in a gas- or fume-filled area.
3. If you can see fumes or smoke, keep your head out of them. For example, fumes from car exhaust are heavy and settle near the floor, so keep your head above them; but in the case of smoke, which rises, keep your head below it.
4. Move the victim out into the fresh air. If for some reason this is not possible, open doors and windows to ventilate the area, returning out into the fresh air as necessary to ensure your safety. Do not administer first aid until you and the victim are out of the hazardous environment or the area is ventilated.

Check the victim's airway, breathing, and circulation (ABCs), and perform mouth-to-mouth resuscitation and CPR as necessary. (See Lesson 2 for checking the ABCs of first aid, mouth-to-mouth resuscitation, and CPR.) Once you are sure the victim is breathing, call EMS if you or someone else has not already done so. Even if the victim seems fine once he/she is in fresh air, call for medical help as symptoms may show up later. While you are waiting for medical help, treat the victim for any burns he/she may have suffered and monitor for shock.

### *ORAL POISONING*

Oral poisoning occurs when a harmful substance, such as a common household cleaning product, is swallowed. First aid for oral poisoning depends on the substance swallowed.

### *SYMPTOMS OF ORAL POISONING*

Symptoms will vary depending on the type and amount of poison inhaled but can include any of the following:

- Abdominal pain and cramping
- Nausea or vomiting
- Diarrhea
- Burns, odor, stains around and in mouth
- Drowsiness or unconsciousness
- Poison containers nearby

### *TREATMENT FOR ORAL POISONS*

Procedures for treating oral poisoning:

1. Determine critical information:
  - a. Age and size of victim
  - b. What was swallowed
  - c. How much was swallowed
  - d. When was it swallowed
1. If a corrosive or caustic substance was swallowed, immediately dilute it by having the victim drink at least 1-2 eight-ounce glasses of water or milk.
2. For a responsive victim, call a poison control center immediately. More than 70 percent of poisonings can be treated through instructions taken over the telephone from a poison control center.
3. For an unresponsive victim, or if the poison control center number is unknown, call EMS and monitor the ABCs.
4. Place the victim on his or her left side to position the end of the stomach where it enters the small intestine straight up. Gravity will delay advancement of the poison into the small intestine, where absorption into the victim's circulatory system is faster.

5. Induce vomiting only if a poison control center or physician advises it. Inducing must be done within 30 minutes of swallowing.
6. Save poison containers, plants, etc. to help medical personnel identify the poison.

## WOUNDS

Wounds are soft tissue injuries that break the skin. Generally, they can be classified as follows:

- *Scrapes (abrasions)* are caused by sliding contact between the skin and a rough surface. They are generally shallow injuries with little bleeding.
- *Cuts (incisions)* are straight, even wounds made with sharp objects like knives or razor blades.
- *Tears (lacerations)* are caused by objects with sharp, irregular edges or by exerted force that leaves jagged, torn tissue.
- *Punctures* are caused by pointed objects such as pins and nails that make small holes in tissue, often with little bleeding.

All wounds can be minor or serious depending on their size, depth, location, and source. Minor wounds involve only the outer skin layer. They stop bleeding in a few minutes on their own or with gentle pressure and can be treated with just first aid. Serious wounds require first aid followed by medical treatment. Consider a wound serious if:

- The skin is cut or torn all the way through so that it gapes open.
- Fat, muscle, or tendons are visible.

- Bleeding is heavy and does not slow or stop after applying pressure for 15 to 20 minutes.
- Soil or other debris cannot be washed from the wound.
- There is loss of function like the inability to move a cut finger.
- It is on the face, since even a small wound may leave a scar.
- It is on the bottom of the foot.
- Its source is a rusty or dirty object or an animal or human bite.

Some extremely serious injuries that generally contain a combination of the four kinds of wounds and always require immediate medical attention are amputations, avulsions, and crushing injuries. They are generally the result of motor vehicle or industrial machinery accidents or explosions.

- An *amputation* is the complete removal of an extremity, such as a finger or leg.
- An *avulsion* is tissue torn from or pulled away from and hanging off of the body. This type of injury may also result from an animal bite.
- *Crushing injuries* occur when parts of the body are caught between heavy objects or when the body is thrown against a heavy object or vice versa. In addition to wounds, crushing injuries include bone fractures, as well as possible injuries to internal organs and internal bleeding.

## TREATMENT OF WOUNDS

For a minor wound, clean it by flushing it with cool water and washing it with mild soap. Dry it thoroughly with a clean cloth, apply a thin layer of antibiotic ointment to keep the wound moist and protect against infection, and cover it with a bandage to keep it clean.

Change the bandage whenever it gets wet or dirty, and consider leaving the bandage off at night when sleeping since exposure to air also helps the healing process. Contact a doctor if the wound does not appear to be healing after several days or shows signs of infection like redness, draining, or swelling.

For serious wounds, follow the steps for controlling bleeding listed in Lesson 3, which include applying direct pressure, elevating the wounded part, cleaning and bandaging the wound, and seeking medical treatment. For any wound caused by a rusty or dirty object or an animal bite, ask if the victim has had a tetanus shot within the past 10 years, and if not, suggest that he/she get one to guard against tetanus infection.

For extremely serious injuries such as amputations, avulsions, or crushing injuries, call EMS, control bleeding, monitor breathing, treat for shock, and provide comfort to the victim until medical help arrives. Remember that tourniquets should only be used in extreme, life-threatening situations, and pressure points should only be used if you are trained to do so.

## **BRUISES**

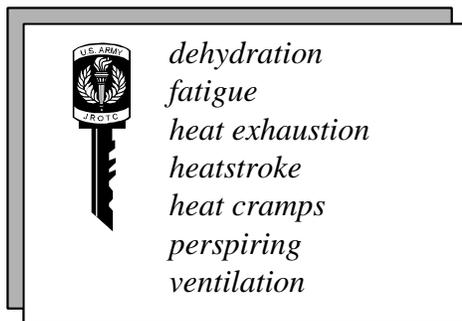
Bruises are injuries that discolor but do not break the skin tissue. They can be caused by a fall, a blow, or bumping into something. Though sometimes very ugly and lasting for several weeks, they are usually not very serious.

Wrap ice or an ice pack in a clean towel and apply it to the bruise. To reduce swelling, elevate the bruised part for 20 to 30 minutes if the injury is mild or for a few hours if it is severe. Seek medical attention if swelling increases unusually, pain increases, the bruise site appears deformed, or there is an inability to move a body part associated with the bruise.

## **CONCLUSION**

You have just learned important procedures for treating poisons, wounds, and bruises, as well as when to apply basic first aid and life-saving skills in these situations. Remember that while it is important to administer first aid treatment as quickly as possible in most situations, some rescue situations require careful assessment before you jump in to save someone, so that you do not become a victim yourself. Remaining calm, thinking logically and clearly, and knowing what steps to take and when to take them will help you to successfully perform first aid. In addition, this chapter provided many tips on how to prevent accidents from occurring in the first place.

## LESSON 7: HEAT INJURIES



### INTRODUCTION

Participating in any vigorous outdoor exercise or activity on an extremely hot day can lead to serious injuries if you are not prepared. Knowing how to recognize the signs and symptoms of heat related injuries can help you prevent a life-threatening accident.

### CAUSES

For your body to work properly, its temperature must be normal, which is around 98° Fahrenheit. You risk health problems, and even death, if your body gets too cold or too hot.

Heat injuries can occur when people are exposed to high temperatures and high humidity. When it is hot, your body cools itself by **perspiring** — sweat evaporates carrying heat away from your body. However, you risk heat injuries when you lose large amounts of water, salt, or both through perspiring, and do not replace the lost fluid, resulting in **dehydration**. You also risk injury in high humidity when sweat does not evaporate as rapidly as needed to keep the body cool, causing heat to build up. The body will then perspire even more in an attempt to cool itself, losing dangerous amounts of fluids in the process.

People who may be at risk of heat injuries include those who exercise or work

outside in high temperatures and high humidity, or those whose bodies do not regulate heat well, such as older people, overweight people, or babies.

### FACTORS TO CONSIDER

When perspiring, the body can lose more than a quart of water per hour. Therefore, since the body depends on water to cool itself, you should drink plenty of water when working or playing in hot weather. Salt, which helps the body to retain water, is also lost through perspiring. In most cases, however, you do not need to consume extra salt because you obtain adequate amounts through a balanced diet. In fact, consuming salt during hot weather activities may pull water away from muscles and other tissues where it is needed and into your digestive tract.

In addition to water intake and diet, consider the type of clothing you wear in hot weather. Wear clothes that fit loosely but also protect the body from sunburn. Wear natural fabrics, like cotton, through which perspiration evaporates better. Some activities require extra clothing or equipment, such as football or hiking with full camping gear. Soldiers may have problems acclimating to hot weather because of the type and amount of clothing and equipment they must wear. In all of these cases, protective gear and equipment may reduce **ventilation** needed to cool the body. So, ensure clothing or uniforms fit well but are not tight, and remove extra pieces of clothing and equipment as soon as they are no longer needed.

### TYPES OF HEAT INJURIES

Overheating of the body progresses through stages. At first, a person may suffer heat cramps. If the person ignores the symptoms and continues exercising, working, or playing in the heat, he or she may experience

heat exhaustion. If heat exhaustion is left untreated, heatstroke may follow and can be fatal.

### *HEAT CRAMPS*

**Heat cramps** are muscular pains and spasms caused by the loss of salt from the body through heavy perspiring. Other symptoms may include stomach cramps, wet skin, and extreme thirst. To treat heat cramps:

1. Move the victim to a shady area, or improvise shade.
2. Loosen the victim's clothing.
3. Give the victim large amounts of cool water slowly.
4. Monitor the victim and give more water as needed.
5. Seek medical aid if cramps continue.

### *HEAT EXHAUSTION*

When people work or exercise heavily in high temperatures or in a hot, humid place, the body loses fluids through heavy sweating. **Heat exhaustion** occurs when fluids are not adequately replaced or when sweat does not evaporate because of high humidity or too many layers of clothing, causing the body to sweat even more. When the body loses a great amount of fluid, less blood flows to vital organs, resulting in a form of shock. The symptoms of heat exhaustion are:

- Heavy sweating
- Weakness or faintness
- Dizziness or drowsiness
- Cool, pale, moist skin
- Headaches
- Loss of appetite

- Heat cramps
- Nausea with or without vomiting
- Confusion
- Chills
- Rapid breathing and pulse
- Body temperature above normal but below 102°F.



Treat heat exhaustion as follows:

1. Move the victim to a cool, shady area, or improvise shade.
2. Loosen the victim's clothing.
3. Pour water on or apply cold, wet cloth to the skin. Fan the victim if it is a hot day.
4. Have the victim slowly drink at least one quart of water.
5. Elevate the victim's legs.
6. Monitor the victim until symptoms are gone. If symptoms continue, seek medical aid.
7. If possible, keep the victim from participating in heavy activity for the rest of the day.

### *HEATSTROKE*

**Heatstroke**, also known as sunstroke, is a medical emergency that can be fatal if not

treated as soon as possible. The victim's cooling mechanism stops working when the body perspires so much that no fluids remain to produce sweat. Since the body can no longer sweat and sweating is its defense against overheating, body temperature rises and skin becomes red and flushed. If body temperature rises high enough, brain damage and death can occur. Therefore, when you encounter a heatstroke victim, you must cool the victim as fast as possible.

Symptoms of heatstroke are:

- No sweating
- Hot, dry, red skin
- Headache, dizziness, nausea, and vomiting
- Fast, weak pulse and shallow respiration
- Seizures and mental confusion
- Unconsciousness or sudden collapse
- Very high body temperature.

Treat victims of heatstroke as follows:

1. Move the victim to a cool, shady area, or improvise shade.
2. Loosen the victim's clothing. Remove any outer garments and protective clothing.
3. Pour water on the victim or immerse in water, and fan the victim so sweat can evaporate. If you cannot immerse the victim, massage arms and legs with cool water.
4. If the victim is conscious, have him or her slowly drink at least one quart of water.
5. Seek medical aid and transport the victim to a medical facility as soon as possible. Perform any necessary life-saving measures.

## PREVENTION OF HEAT INJURIES

You can prevent heat injuries by taking just a few simple precautions and exercising a

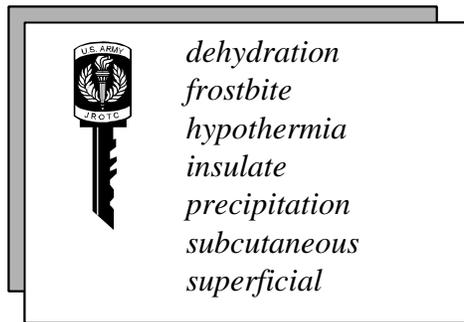
little common sense. If possible, limit your exposure to high temperatures and avoid working or exercising outside in hot, humid weather. During work or training periods, or in extremely hot climates, drink at least one quart of water every hour. Also, remember to dress for the hot weather and the activity being performed.

In the military or in the field, prevention of heat injuries is both an individual and leadership responsibility. Leaders should identify people who have a high risk of injury — basic trainees, overweight individuals, and individuals who have symptoms of **fatigue** or a previous history of heat injury. If possible, leaders should schedule heavy or strenuous activities during cooler morning or evening hours.

## CONCLUSION

Vigorous exercise in hot weather can lead to heat cramps, heat exhaustion, or heatstroke. Familiarize yourself with the symptoms of these injuries, which can be serious or even fatal if left untreated. By knowing the signs of heat injuries, and taking precautions, you should be able to enjoy exercising outdoors, even in hot weather.

## LESSON 8: COLD WEATHER INJURIES



### INTRODUCTION

It is common to think that only in areas where snow and frost are present, people are susceptible to cold weather injuries. Prolonged exposure to low temperatures, wind or moisture — whether it be on a ski slope or in a stranded car — can result in cold-related injuries such as frostbite and hypothermia, no matter where you live if you are not prepared.

### FACTORS TO CONSIDER

#### WEATHER

Low temperature, high humidity, **precipitation**, and high wind may affect the loss of body heat. Wind chill (the temperature of both the wind speed and air temperature combined) speeds up the loss of body heat and may aggravate cold injuries. By studying the Wind Chill Chart, you can determine the chilling effect that wind speed has on temperature.

#### STRESS

When in a stressful situation, people are more likely to experience fear, fatigue, dehydration, and lack of nutrition. These factors increase the possibility of cold injury.

### CLOTHING

When in cold weather, you should wear several layers of loose clothing and dress as lightly as the weather permits. This reduces the danger of excessive perspiration followed by chilling. It is better if the body is slightly cold and producing heat than overly warm and sweltering toward dehydration. Wet clothing adds to the possibility of cold injury.

HOW TO USE THE WIND CHILL CHART

Find the wind speed in the left-hand column, then read across to the column under the actual temperature. This number is the equivalent temperature which would be acting on any exposed skin. For example, if the wind is blowing at 20 mph and the actual temperature is 10° F, the effect on bare skin would be the same as a temperature reading of -25° F under calm conditions. Any movement has the same cooling effect as the wind. Running, skiing, or riding in an open vehicle must be considered in using the wind chill chart.

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WIND CHILL CHART FOR FAHRENHEIT TEMPERATURES

ESTIMATED WIND SPEED IN MPH	ACTUAL THERMOMETER READING (° F)											
	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
CALM	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-24	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-32	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-124
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-21	-35	-51	-67	-82	-96	-113	-129	-145
40	26	10	-6	-24	-37	-53	-69	-85	-100	-116	-132	-148
WIND SPEEDS ABOVE 40 MPH HAVE LITTLE ADDITIONAL EFFECT.	LITTLE DANGER FOR THE PROPERLY CLOTHED PERSON; MAXIMUM DANGER OF FALSE SENSE OF SECURITY.				INCREASING DANGER OF FREEZING EXPOSED FLESH.				GREAT DANGER			

TRENCH FOOT AND IMMERSION FOOT MAY OCCUR AT ANY POINT ON THIS CHART.

### PHYSICAL MAKEUP

Physical fatigue leads to inactivity, personal neglect, carelessness, and less heat production. These, in turn, increase the risk of cold injury. Individuals who have had a cold injury before have a higher risk of being injured again.

### PSYCHOLOGICAL FACTORS

Mental fatigue and fear lessen the body's ability to rewarm itself and thus increase the possibility of cold injury. Depressed or unresponsive individuals are also at a higher risk of cold injury, because they are less active and tend to be careless about protecting themselves.

### OTHER FACTORS

Individuals are also at risk of cold injury if they are:

- Often in contact with the ground.
- Immobile for long periods of time, such as while riding in a crowded vehicle.
- Standing in water.
- Out in the cold for days without being warmed.
- Deprived of an adequate diet and rest.
- Careless about personal hygiene.

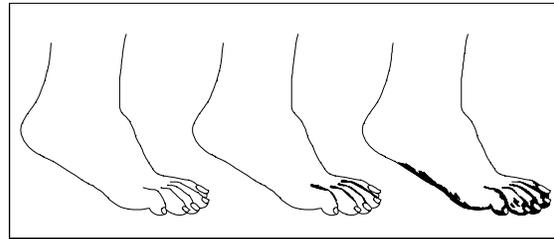
### TYPES OF COLD INJURIES

People exposed to severe cold can suffer from the following conditions: **frostbite**, immersion foot/trench foot, **hypothermia**, snow blindness, and **dehydration**.

### FROSTBITE

Frostbite is the most common injury resulting from exposure to the cold. Ice crystals form in body tissues exposed to temperatures below freezing. The crystals restrict blood flow to the injured parts and are like daggers that puncture cell membranes as they grow larger. Body parts most easily frostbitten are the cheeks, nose, ears, chin, forehead, wrists, hands, and feet. People suffering from frostbite may not realize it, since the injured part may be numb from the cold.

There are different degrees of frostbite depending on the extent of tissue damage. A **superficial** cold injury can usually be characterized by numbness and tingling or “pins and needles” sensations. It involves the skin and the tissue just beneath the skin. Deep frostbite, on the other hand, involves freezing of the **subcutaneous** tissue, and possibly even muscle and bone. With a deep cold injury, victims are often unaware of a problem until the affected part feels like a stump or block of wood. Severe frostbite may result in infection or gangrene and may require surgical removal of the injured part.



### Signs of Frostbite

Signs of superficial frostbite include:

- Redness of the skin on light-skinned individuals; grayish coloring of the skin on dark-skinned individuals
- Blisters in 24 to 36 hours
- Sloughing of the skin

Signs of deep frostbite include:

- Signs of superficial frostbite
- Painless or numb unthawed skin that is pale-yellowish and waxy looking
- Frozen, swollen tissue that is like wood to the touch
- Blisters in 12 to 36 hours

### Treatment of Frostbite

Treat superficial frostbite as follows:

1. Move the victim out of the cold and wind.
  2. Keep the victim warm; re-warm the affected parts gently and slowly. Explain to the victim that he or she will experience pain when warmth restores feeling to the injured part.
    - a. Cover cheeks, ears, and nose with the victim's and/or your hands.
    - b. Put fingertips under the victim's armpits.
    - c. Place the victim's feet under the clothing of another person next to that person's belly.
  3. **Insulate** injured parts by covering them with a blanket or dry clothing.
  4. Loosen tight clothing and remove wet clothing.
  5. Encourage the victim to exercise carefully, avoiding further injury.
  6. Seek medical treatment.
- Avoid having the victim walk on frostbitten feet, especially if they thaw. If the victim must walk, it is less dangerous while his or her feet are frozen.
  - Do not rub the injured part with snow or apply cold water packs.
  - Do not warm the injured part by massage; ice crystals in the tissues will damage more cells when rubbed.
  - Do not expose the injured part to open fire; the frozen part may burn because of lack of feeling.
  - Do not have the victim move the injured part to increase circulation.
  - Do not break any blisters.
  - Do not use ointments or other medications.
  - Do not let the victim use alcohol or tobacco. Alcohol reduces the body's resistance to cold, and tobacco decreases blood circulation.

Deep frostbite is very serious and requires extra care to reduce or avoid losing all or parts of the fingers, toes, hands, or feet. If possible, transport the victim to a hospital or contact emergency medical services immediately, since it is preferable that deep frostbite injuries be rewarmed under medical supervision. If this is not possible, re-warm the injured parts, protect them from re-freezing, and seek medical help as soon as possible.

#### *The Don'ts of Treating Frostbite*

- Do not attempt to thaw the affected part if you believe you cannot keep it warm until the victim receives medical treatment. It is extremely dangerous for an injured part to re-freeze after warming. It is less dangerous to leave the part frozen than to warm it and have it re-freeze.

#### *IMMERSION FOOT/TRENCH FOOT*

Immersion foot and trench foot result from long exposure of the feet to wet conditions at temperatures between approximately 32° and 50°F. Keeping your feet in damp or wet socks and shoes or tightly laced boots for long periods of time may affect circulation and contribute to injury. Inactivity also increases the risk of immersion foot/trench foot. This injury can be very serious, leading to loss of toes or parts of the feet.

#### *Signs of Immersion Foot and Trench Foot*

Symptoms of immersion foot/trench foot in the primary stage include affected parts

that are cold, numb, and painless. These parts may then begin to feel hot, with burning and shooting pains. In the advanced stage of immersion foot/trench foot, your pulse decreases and the skin becomes pale with a bluish cast. Redness, blistering, swelling, heat, hemorrhages, and gangrene may follow.

### *Treatment of Immersion foot and Trench foot*

Treat immersion foot/trench foot as follows:

1. Gradually re-warm the affected foot by exposure to warm air. Explain to the victim that he or she may experience pain and burning when you re-warm the foot.
  - a. Do not massage or moisten skin.
  - b. Do not apply ice.
  - c. Do not expose injured parts to open fire or other sources of heat. Warm by covering with loose, dry clothing or other coverings instead.
2. Protect the affected foot from trauma or infection.
3. Elevate the foot to relieve swelling.
4. Dry the foot thoroughly; avoid walking.
5. Seek medical treatment.

### **HYPOTHERMIA**

Hypothermia is a general cooling of the body to a temperature below 95°F caused by continued exposure to low or rapidly dropping temperatures, cold moisture or wind, snow, or ice. With hypothermia, the body loses heat faster than it can produce it. Inadequate insulation, fatigue, poor physical condition, dehydration, faulty blood circulation, alcohol, trauma, and immersion in cold water can bring on this condition. People at high risk of hypothermia include infants, older people, people with lim-

ited mobility due to illness or other medical conditions, very thin people, and people with heart and lung problems.

Remember, cold weather affects the body slowly and almost without notice. Even when well-protected by clothing, a person may suffer cold injuries if exposed to low temperatures for long periods of time. As the body cools, it goes through several stages of discomfort and problems.

### *Signs of Hypothermia*

- Shivering or trembling which indicates mild hypothermia and will eventually stop as body temperature drops
- Cold skin
- Weakness
- Dizziness
- Drowsiness and mental slowness or confusion
- Uncoordinated movements and slurred speech
- Low body temperature; in severe hypothermia, 90°F or below
- Stiff or rigid muscles
- Decreasing pulse and breathing rate
- Unconsciousness
- Shock, coma, and death, which may result as body temperature drops and the body freezes.



### *Treatment of Hypothermia*

Except in the most severe cases, the treatment for hypothermia is directed toward re-warming the body evenly and without delay.

Treat mild hypothermia as follows:

1. Re-warm the victim slowly.
  - a. If possible, move the victim inside, remove any wet clothing, and cover him or her with blankets. Avoid warming the victim quickly with hot baths, electric blankets, or heat lamps.
  - b. If you cannot move the victim inside, remove any wet clothing and rewarm him or her beside a campfire or using the body heat from another person.
2. Keep the victim dry and protected with clothing, blankets, towels, a sleeping bag, or even newspapers.
3. Keep the victim awake.
4. Do not raise the victim's feet or legs, since blood in the extremities is colder than in the rest of the body and may further chill the body's core.
5. Give the victim warm liquids gradually. Do not give the victim alcohol. Do not force liquids on an unconscious victim.
6. Be prepared to start basic life-support measures.
7. Seek medical treatment immediately.

Treating a person with severe hypothermia is extremely dangerous because of the possibility of shock and disturbances of the heartbeat while re-warming. If possible, as you begin to re-warm the victim, transport him or her to a hospital or contact Emergency Medical

Services immediately. If this is not possible, treat the victim gently since the heart is weak when the body is cold, stabilize the victim's body temperature by keeping him or her from losing more body heat, and continue to keep the victim warm until you can get him or her medical treatment.

### *SNOW BLINDNESS*

Snow blindness is the effect the glare from an ice field, or snowfield, has on the eyes. It is more likely to occur in hazy, cloudy weather, since people tend to protect their eyes when the sun is shining and believe protection is unnecessary on cloudy days. If a person waits until he or she feels discomfort or pain to use protective eyewear, a deep burn of the eyes may have already occurred.

#### *Signs of Snow Blindness*

- A sensation of grit in the eyes
- Pain in and over the eyes made worse with eye movement
- Watery and red eyes
- Headache
- Increased pain with exposure to light

#### *Treatment of Snow Blindness*

Treat snow blindness as follows:

1. Cover the eyes with a dark cloth to discourage painful eye movement.
2. Try to give the eyes complete rest without exposure to light. If this is not possible, protect the eyes with dark bandages or very dark glasses.
3. Seek medical treatment. In most cases, once exposure to sunlight stops, the eyes heal in a few days without permanent damage.

## *DEHYDRATION*

Dehydration occurs when the body loses too much fluid, salt, and minerals. As mentioned in the previous lesson, you can lose large amounts of fluid and salt through sweating. This loss creates an imbalance of fluids, and dehydration occurs when fluids are not replaced.

Dehydration can occur in both hot and cold climates. In cold weather, sweat evaporates quickly and heavy layers of clothing absorb it, making dehydration more difficult to detect because the signs of sweating are less noticeable. Thus, the danger of dehydration during strenuous cold weather activities can become a serious problem.

The symptoms of cold weather dehydration are similar to those of heat exhaustion. Treat dehydration as follows:

1. Move the victim out of the wind and cold, and keep him or her warm.
2. Loosen the victim's clothes to promote circulation.
3. Ensure the victim receives proper fluid replacement, rest, and prompt medical treatment.

## **PREVENTION OF COLD INJURIES**

You can prevent many cold weather injuries by taking proper care and precautions when participating in cold weather activities. Be sure to receive adequate nutrition, hot meals, and warm fluids. Get enough rest. Practice good hygiene. Wear the right clothing and protective gear. Do not forget to protect your eyes, ears, and face. Wear layers of clothing so you can remove outer layers if you begin to perspire. Avoid tight clothes that interfere with

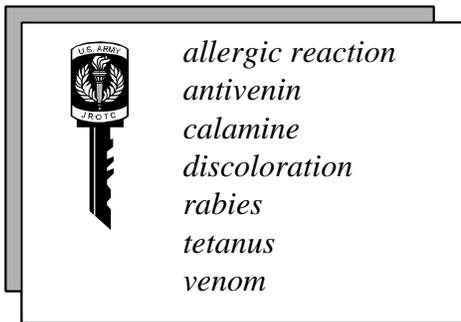
circulation. Replace or remove any clothing that gets wet as soon as possible.

Since you may not feel cold injuries because of cold's numbing effect, always try to go out into cold weather with a partner, so you can check each other for signs of injury. Exercise and keep active to maintain steady circulation and improve resistance to the cold. Many cold weather injuries can be avoided by planning ahead, staying alert, and using common sense.

## **CONCLUSION**

Whether or not snow and frost are present, cold weather injuries, such as frostbite or hypothermia, can be a threat to safety. Knowing the proper ways to treat these injuries is very important because, although it might seem like a good idea to re-warm the victim, you may in fact be making the injury worse. Read over the first aid measures outlined in this lesson, consider how to prevent these injuries in the first place, and you will not be caught off guard when you are exposed to the cold.

## LESSON 9: BITES, STINGS, AND POISONOUS HAZARDS



### INTRODUCTION

With so many outdoor activities to participate in, such as hiking, camping, bicycle riding, skate boarding, and skiing, it is common to come across emergencies involving bites, stings, and poisonous hazards. It is estimated that one of every two Americans will be bitten at some time by an animal. Dogs are responsible for about 80 percent of all animal-bite injuries. Depending upon where you live, the type of first aid you need to know for snakebites and plants will vary. Knowing what to do when in the outdoors can mean the difference between life and death.

### SNAKEBITES

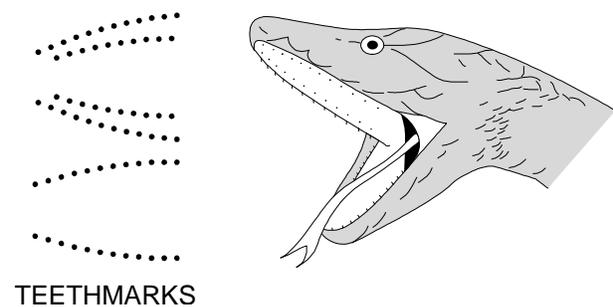
If you spend much of your time outdoors, it may be common for you to come across snakes; however, your chances of a snakebite are remote if you remain alert and careful. There are both poisonous and nonpoisonous snakes, so the severity of a snakebite depends on whether the snake is poisonous or not. Beyond that, the severity of a snakebite depends on the type of snake, location of the bite, and the amount and type of **venom** injected.

### TYPES OF VENOMS

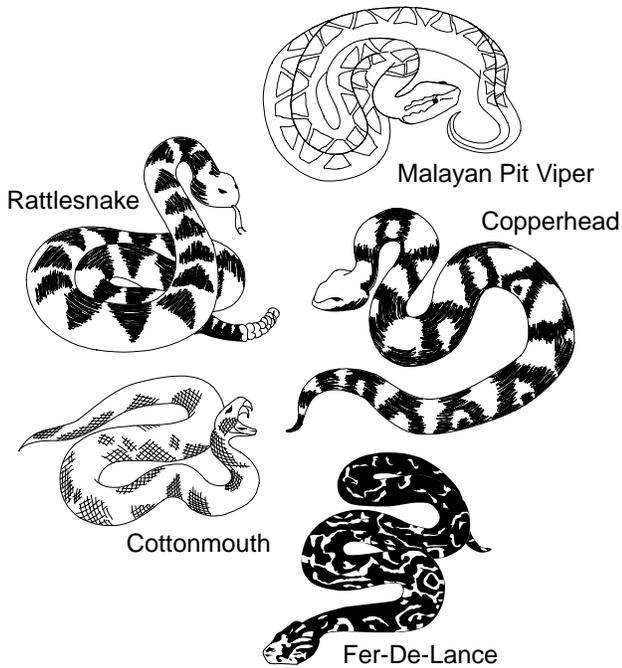
Basically, venoms are categorized as either: 1) neurotoxins, which affect the nervous system and can cause death by paralysis, 2) hemotoxins, which digest tissue including blood cells, or 3) cardiotoxins, which affect the heart directly.

### TYPES OF SNAKES

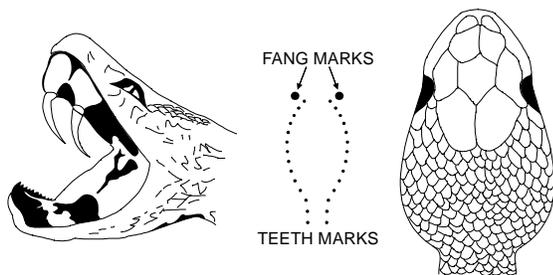
There are approximately 130 different varieties of nonpoisonous snakes in the United States. They have oval-shaped heads and round pupils. Unlike pit vipers, discussed shortly, nonpoisonous snakes do not have sensory pits with which to sense the body heat of their prey.



Poisonous snakes exist throughout the world, primarily in tropical to moderate climates. In the United States, there are four kinds of native poisonous snakes. Three of these four, the rattlesnake, copperhead, and cottonmouth (water moccasin), are pit vipers. Pit vipers in other parts of the world include the bushmaster and fer-de-lance in Central and South America, the tropical rattlesnake in Central America, and the Malayan pit viper in eastern Asia.

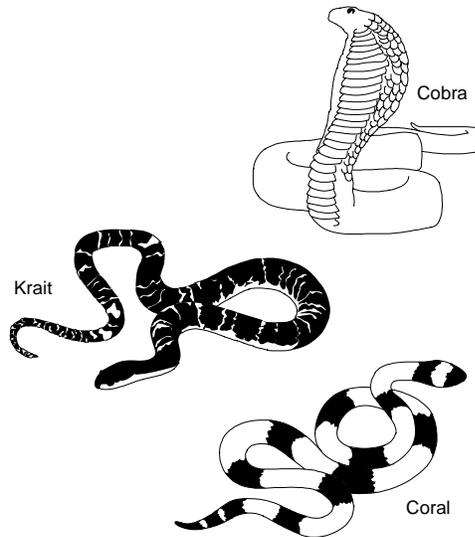


Pit vipers have slit-like pupils; flat, triangular-shaped heads; small, deep, heat-sensing pits between their nostrils and eyes; and in most cases, hemotoxic venom. When a pit viper bites, it injects this venom from sacs through long, hollow fangs. This produces a severe burning pain, along with **discoloration** and swelling around the fang marks. The hemotoxin destroys blood cells, which causes the discoloration of the skin. Blisters and numbness in the affected area follow this reaction. Pit viper bites attack the circulatory system, possibly causing weakness, rapid pulse, and shortness of breath, as well as nausea, vomiting, and shock.



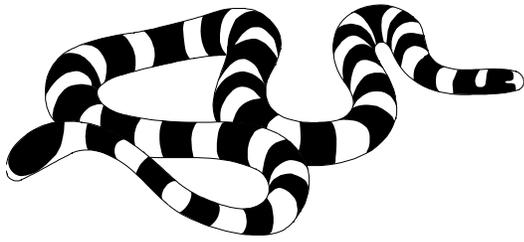
Corals, cobras, kraits, and mambas belong to the cobra family. The coral snake is the only one native to the United States. Rings

of red, yellow, and black color encircle its body. While other nonpoisonous snakes have the same colors, only the coral snake has a red ring next to a yellow ring. The cobra, found in Africa and Asia, forms a hood with its neck when on the defensive. The krait, found in India and southeast Asia, is brightly banded, while the mamba in Africa is either almost black or green.



These snakes look very different, but all four inject their venom, a neurotoxin, through short, grooved fangs leaving a characteristic bite pattern. There is minimal pain and swelling compared to a pit viper bite, but since their powerful venom affects the central nervous system, it can cause blurred vision, drooping eyelids, slurred speech, drowsiness, and increased salivation and sweating. Nausea, vomiting, shock, respiratory difficulty, paralysis, convulsions, and coma develop if the bite is not treated promptly.

Sea snakes are found in warm water areas of the Pacific and Indian Oceans. They have small heads, thick bodies, and tails flattened along the sides. Their fangs are only 1/4 inch long, but their venom is very poisonous.



### TREATING SNAKEBITES

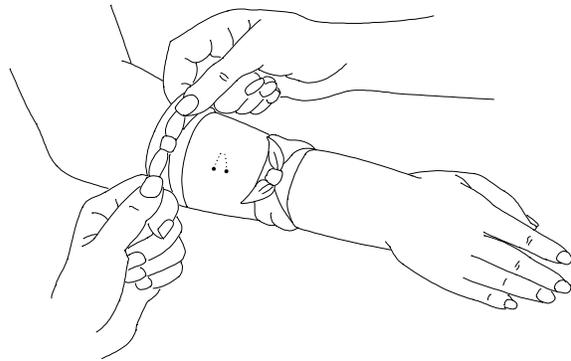
Snakebites are rarely fatal if treated within an hour or two, but they can cause pain and illness and may severely damage a bitten hand or foot. Although snakes do not always inject venom, all snakes may carry **tetanus** (lockjaw). Therefore, anyone bitten by a snake, whether poisonous or nonpoisonous, should receive immediate medical attention.

One of the most important parts of treating a snakebite is identifying the type of snake making the bite. The type of **antivenin** used in medical treatment of snakebites varies depending on the type of venom injected. If you can identify the type of snake causing the injury, let Emergency Medical Services know when you call for help or phone the information ahead to the hospital if you plan to transport the victim yourself. If you cannot identify the snake, try to kill it without risk to yourself or delaying first aid. Then, show it to emergency medical personnel or take it to the hospital along with the victim for identification.

To treat snakebites:

1. Get the victim away from the snake.
2. Reassure and keep the victim quiet and still. This will keep circulation to a minimum and keep the venom from spreading.
3. Immobilize the affected part in a position below the level of the heart.
4. Remove rings, bracelets, watches, and other jewelry from any affected limb.

5. Wash the bite thoroughly with soap and water. Do not apply any ointments.
6. Place an ice bag or freeze pack, if available, over the area of the bite. Do not place ice directly on the skin or wrap the limb with ice. You are only trying to cool the bite area, not freeze it.
7. For bites to the arms, legs, hands, or feet, apply constricting bands two to four inches away from the bite. For an arm or leg bite, place one band above and one below the bite. For a hand or foot bite, place one band above the wrist or ankle. To ensure a band is not too tight, you should be able to insert a finger between the band and the skin.



8. If swelling from the bite reaches the band, tie another band a few inches farther away from the bite and the old band, then remove the old band.
9. Do not give the victim any food, alcohol, tobacco, medication, or drinks with caffeine.
10. Seek medical aid immediately.

### PREVENTION OF SNAKEBITES

Most snakes are shy and passive. Unless they are injured or disturbed, they tend to avoid contact with humans. You can prevent a snakebite by using caution and common sense. If you are working outside clearing dense under-

growth, wear gloves, long sleeves, long pants, and boots for protection. When hiking in the wilderness, wear boots and long pants. Try to walk in open areas or stay on established paths. Look where you are stepping or placing a hand if climbing or pushing away tree limbs. Check before sitting on a rock or fallen tree. If possible, stay away from brush, rocks, and undergrowth. If you must handle a snake, even a freshly killed one, use a long tool or stick.

## HUMAN AND ANIMAL BITES

Mouths of people and animals are full of bacteria, so human and animal bites that break the skin spread germs and may result in serious infection and disease. A person bitten by a diseased animal may come down with tetanus, **rabies**, and various types of fevers. If you think an animal is carrying a disease, notify the proper authorities to have it captured.

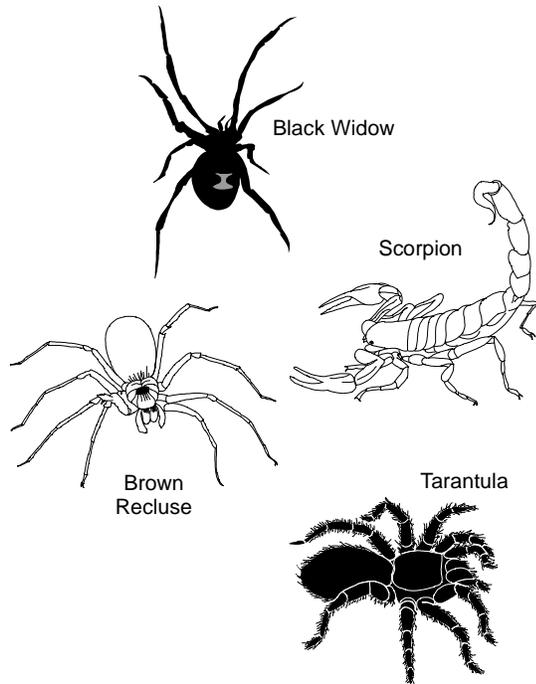
Treat a victim of an animal bite as follows:

1. If bleeding is severe, control it first before continuing with other first aid. Refer to lesson on Controlling Bleeding for procedures to control bleeding.
2. Cleanse the wound thoroughly with soap or a detergent solution and water. Continue to cleanse and flush the wound with water for five minutes.
3. If there is minor bleeding, cover the wound with gauze or a clean cloth, press firmly on the wound, and if possible, raise the injury above the level of the victim's heart.
4. When minor bleeding stops, cover the wound with a sterile dressing and secure the dressing in place.
5. Immobilize an injured arm or leg.
6. Seek medical assistance as soon as possible.

## INSECT BITES AND STINGS

In the outdoors, you may come in contact with various types of biting and stinging insects — bees, mosquitoes, ticks, fleas, spiders, etc. Most of these insect bites and stings result in minor reactions, such as itching, redness, swelling, and irritation. However, scorpions and certain spiders can inject powerful poisons when they bite, and some people may have an **allergic reaction** to an insect bite or sting, particularly made by bees or wasps. In these cases, seek medical treatment immediately.

The black widow and brown recluse spiders, tarantulas, and scorpions are some of the more harmful insects you may encounter. Venom from the black widow is neurotoxic and may cause stomach and muscle cramps, breathing difficulties, nausea, sweating, vomiting, and convulsions. Tarantula venom is basically neurotoxic and may produce symptoms like that of a black widow bite, but in some cases can affect the heart and may digest tissue producing a severe local wound. The brown recluse spider can produce severe tissue damage around the bite, possibly leading to gangrene; and while stings from certain types of scorpions are painful but not dangerous, some can cause nausea, fever, stomach cramps, and possible convulsions and shock.



In most cases, bee and wasp stings produce minimal swelling, pain, redness, itching, and burning at the site of the sting. Multiple stings may cause headaches, fever, muscle cramps, and drowsiness. Symptoms from an allergic reaction may include:

- Extreme pain at the site of the sting
- Itching and hives
- Weakness
- Anxiety
- Headache
- Breathing difficulties
- Nausea and vomiting
- Diarrhea
- Collapse, shock, and even death from a serious allergic reaction.

Take the following basic first aid measures regardless of what caused the bite or sting:

1. Remove any stinger left in the skin by scraping the skin's surface with a fingernail or knife. Do not squeeze the stinger because it may inject more venom.

2. For tick bites, remove the tick with your fingers if it will come off the skin easily. Do not pull the tick off if it will not come easily; this may leave the head of the tick in the skin which can cause infection. Instead, cover the tick with vaseline or thick oil to make it let go, then remove it.
3. Wash the area of the bite/sting with soap and water. Apply an antiseptic, if available, to minimize the chances for infection.
4. Use ice or cold compresses on the site of the bite/sting to help reduce swelling. Do not apply the ice directly to the skin.
5. Apply **calamine** lotion or a baking soda and water paste to the bite to relieve pain and itching.
6. Treat more serious allergic reactions as you would a snakebite.
  - a. Apply constricting bands above and below the site.
  - b. Be prepared to perform basic life-support measures.
  - c. To positively identify the insect, attempt to capture it without putting yourself at risk.
  - d. Seek medical aid right away.
7. If signs of infection like pus, red streaks leading away from the bite, swollen glands, or fever occur within hours or several days after an insect bite, seek medical attention.

### *PREVENTION OF INSECT BITES AND STINGS*

Wear insect repellent when outside in areas where biting insects are present. Reapply repellent every few hours when participating in activities that cause heavy perspiration. Wear appropriate protective clothing when hiking or

camping in the wilderness or working in a yard, garden, or other woody or overgrown area.

## POISONOUS PLANTS

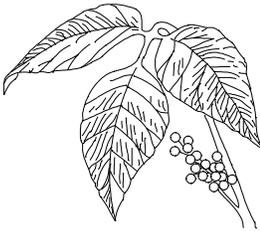
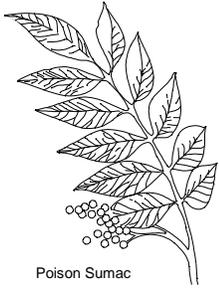
Most plants are harmless, but a few can cause allergic reactions upon contact. For example, plants of the poison ivy group, including poison oak and poison sumac, produce an oily substance that irritates the skin of many people. Reactions to this substance include a rash characterized by redness, blisters, swelling, and intense burning and itching, as well as headaches and fever. Although the rash usually begins within a few hours after contact, it may appear 24 to 48 hours later.

In general, treat someone who has come in contact with a poisonous plant as follows:

1. Remove contaminated clothing. Set it aside to be washed.
2. Wash all exposed areas of the skin thoroughly with soap and water, then apply rubbing alcohol.
3. Apply calamine or other soothing skin lotion to relieve itching and burning. Avoid covering the rash with a dressing.
4. Seek medical treatment if a severe rash occurs, if the rash is on the face or mouth which may interfere with breathing, or if there is a known history of allergic reactions.

### PREVENTION OF EXPOSURE TO POISONOUS PLANTS

Become familiar with what poison ivy and other poisonous plants look like, so you can recognize a poisonous plant and avoid contacting it. Refer to the following illustration to help in your identification of poison ivy, poison oak, and poison sumac.

<p><b>COMMON POISON IVY</b></p> <ul style="list-style-type: none"> <li>◦ Grows as a small plant, a vine, and a shrub.</li> <li>◦ Grows everywhere in the U.S. except California and parts of adjacent states.</li> <li>◦ Leaves always consist of three glossy leaflets.</li> <li>◦ Also known as Eastern three-leaf ivy, poison creeper, climbing sumac, poison oak, markweed, picry, and mercury.</li> </ul>	 <p>Poison Ivy</p>
 <p>Poison Oak</p>	<p><b>WESTERN POISON OAK</b></p> <ul style="list-style-type: none"> <li>◦ Grows in shrub and sometimes vine form.</li> <li>◦ Grows in California and parts of adjacent states.</li> <li>◦ Leaves consist of three leaflets with wavy edges.</li> </ul>
<p><b>POISON SUMAC</b></p> <ul style="list-style-type: none"> <li>◦ Grows as a woody shrub or small tree from 5 to 25 feet tall.</li> <li>◦ Grows in most of the eastern third of the U.S.</li> <li>◦ Leaflets grow opposite each other with one leaflet at the tip.</li> <li>◦ Also known as swamp sumac, poison ash, poison dogwood, and thunderwood.</li> </ul>	 <p>Poison Sumac</p>

The following are other precautions you should take to limit your exposure to poisonous plants:

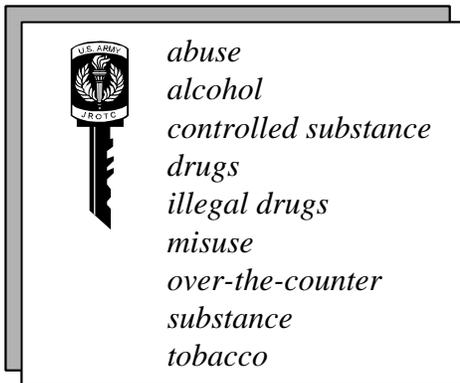
- Dress appropriately when participating in outdoor activities.
- Avoid areas where you are aware that poisonous plants grow.
- Do not eat plants or parts of plants that you do not recognize.
- Do not put grass, twigs, stems, or leaves in your mouth.

## CONCLUSION

Being able to adjust to new environments and protect yourself from harmful conditions is very important when participating in outdoor activities. Factors in nature such as extreme temperatures and humidity; animal, snake, and insect bites; and poisonous plants can pose a threat to you if you do not take precautions to guard against the possibility of injury. By being aware of potential hazards, knowing how to treat outdoor-related injuries, and exercising common sense, you can cope successfully with the environment and enjoy your time in the great outdoors.

## DRUG AWARENESS AND SUBSTANCE ABUSE

### LESSON 1: COMMONLY ABUSED SUBSTANCES AND THEIR USE



#### INTRODUCTION

Used under proper conditions, **drugs** can relieve pain, cure illness, and save lives. When abused, however, drugs can ruin lives and even cause death. This lesson defines drugs and explains the difference between drug use, drug **misuse**, and drug **abuse**. It discusses several types of drugs that people abuse, their side effects, and indications of overdose.

Think about the word “drug” for a moment. It can bring many images to mind **over-the-counter** aspirin to stop a headache, a news report about someone arrested for cocaine possession, a prescription for antibiotics from your doctor, a drug-related death covered on the front page of the paper, medical research to develop drugs to cure illnesses, the war on drugs, etc. So exactly what is a drug?

Broadly defined, a drug is any **substance** taken into the body that changes how the body functions, whether mentally or physically. This includes medications used for the prevention and treatment of disease, as well as any **controlled substance** to which a

person can become addicted. Whether or not a drug is legal or illegal is no indication of whether or not it is addictive. For example, both **alcohol** and the nicotine in **tobacco** products like cigarettes are addictive drugs. And, just because a drug has a medical purpose does not mean it is not addictive. Many medications, when misused or abused, can cause addiction.

#### DRUG USE, MISUSE, OR ABUSE?

*Drug use* is taking a legal drug as recommended or prescribed for medical reasons. *Drug misuse* is taking a legal drug for medical reasons but not as recommended or prescribed. For example, a person who doubles the recommended dosage of a pain reliever because they think it will make their headache go away quicker is misusing a drug. *Drug abuse* is taking a legal or **illegal drug** for a nonmedical reason in a way that can injure your health or ability to function.

#### WHY DO PEOPLE ABUSE DRUGS?

Some people try drugs out of curiosity or as an act of rebellion. Others cannot resist the peer pressure to try drugs. Once people have tried a drug, whether or not they continue to abuse it depends on their individual personalities and situations and on the kind of drug abused.

Most drugs that people abuse produce feelings of pleasure and well-being. When people are unhappy, lonely, or stressed, or are missing something in their lives such as friends, love, or satisfying work, they may abuse drugs to avoid their problems or fill a void. But when the effects of the drug wear off, they realize the problems and the void are still there. So, they turn to the drug again.

This cycle is what leads to addiction, a trap that can ruin a person emotionally, socially, economically, legally, and physically. Some drugs are far more addictive than others. For example, a first-time user of crack cocaine has a one in three chance of becoming an addict. This is why it is important to stop before you ever start taking drugs.



**STOP!**

***WHAT CAN YOU DO TO REMAIN DRUG-FREE?***

- ⇒ Fill your life with activities and people you enjoy.
- ⇒ Believe in yourself.
- ⇒ Practice saying no before you are actually in a situation where someone offers you drugs, so you will not hesitate to say no when the time comes.
- ⇒ Think through the consequences of abusing drugs. Where will drugs lead you in life? How long will your body remain

healthy if you abuse drugs? How many of your plans can drugs ruin?

- ⇒ Remember that drugs do not solve problems; they create them.

**COMMONLY ABUSED DRUGS AND THEIR EFFECTS**

Many people take drugs without knowing what effect they have on the mind and body. Knowing ahead of time what a drug can do is often enough to convince a person not to try it, especially if one of the potential dangers of abusing a drug is death.

***ALCOHOL***

Alcohol, legal for those 21 years of age and older, is the most widely consumed and abused drug in the United States. It is socially acceptable in our society for adults to drink in moderation. In excess, however, alcohol is a dangerous drug.

In moderation, alcohol causes people to relax and produces a sense of euphoria. But the more a person drinks, the more his or her brain is affected by the depressant quality of alcohol. This does not mean that the person feels depressed, but that parts of the brain that control behavior are depressed or “put to sleep.” Speech slurs, vision blurs, and judgment and coordination are impaired.

With enough alcohol in the body, the person’s conscious brain becomes entirely depressed, causing the person to lose consciousness. Extremely high levels of alcohol in the body can cause death when the part of the brain that controls breathing and heartbeat is depressed. In most cases, however, before a drinker reaches these extreme states of drunkenness, the body causes him or her to vomit, getting rid of alcohol in the stomach before more is absorbed into the bloodstream. This is

one way the body defends itself against alcohol, which is a poison.

Since the liver filters poisons out of the bloodstream, it is the first organ damaged by long-term alcohol abuse. This leads to high blood pressure; a weakened immune system; and excess fat in the blood vessels and fat storage sites, such as the stomach, hips, and legs. Other health problems caused by excessive alcohol abuse include ulcers, kidney and bladder damage, brain damage affecting vision and memory, and an increased risk of cancer.

In addition to the health risks of long-term alcohol abuse are injuries and deaths from alcohol-related accidents and violence. Since alcohol affects judgment, people who have had too much to drink may try dangerous stunts, including driving “under the influence.” Driving drunk is illegal, because alcohol affects vision and coordination and slows reaction time, making a drunk driver a very dangerous individual. Every year, thousands of young people die and tens of thousands are disfigured and crippled in alcohol-related car accidents.

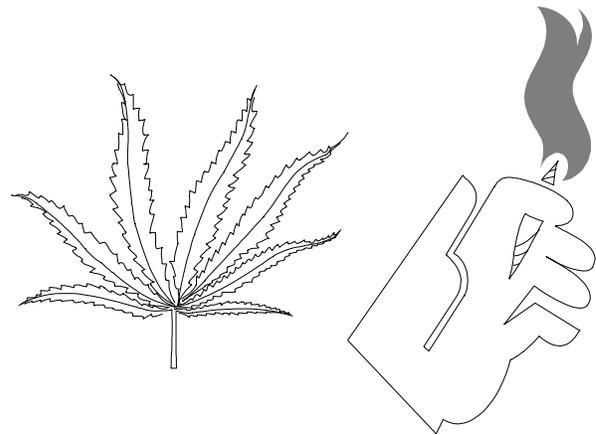
**DON'T DRINK  
& DRIVE**



With their judgment affected by too much alcohol, people may also become aggressive. Alcohol is a factor in over 50 percent of murders and child abuse cases, and over 25 percent of rapes and suicides.

### *MARIJUANA (Pot, Grass, Weed, Dope, Reefer)*

Marijuana comes from the plant cannabis, also called hemp, which is harvested and dried, and then smoked in cigarettes (joints) or pipes. The active chemicals in marijuana affect the brain, altering hearing, taste, touch, smell, and sense of time and space. The effects of marijuana vary from person to person depending on each person's expectations and how much they smoke, and because the chemicals in different marijuana plants vary. People may experience anything from a mild euphoria to uncontrollable laughter to hallucinations.

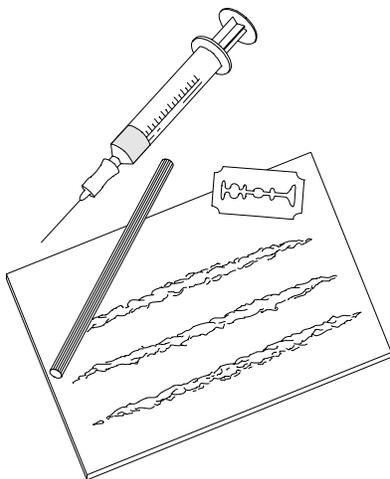


Harmful health effects of marijuana use may include rapid and irregular heartbeat, short-term memory loss, shortened attention span, a weakened immune system, fatigue, and a higher risk of lung cancer. In extreme cases, marijuana abuse can result in paranoia and psychosis. Like alcohol, marijuana abuse can affect driving ability. As with any illegal drug, marijuana is not tested for safety and purity. It may contain pesticides and molds and may be mixed with other dangerous drugs.

*COCAINE (Coke, Crack, Flake, Rock, Snow)*

Cocaine is an illegal drug that comes from the leaves of the coca bush. It is a white powder that one snorts into the nose or mixes with water and injects. It is a stimulant that affects the nervous system providing short bursts of euphoria, a feeling of excitement, increased blood pressure and pulse rate, and alertness. People often use it to increase mental activity and to offset drowsiness and fatigue. However, the intense high of cocaine is followed by an intense low. Repeated abuse of cocaine can result in a strong physical and psychological dependency. The body will ignore all other drives, including hunger, in its drive for cocaine.

Crack is cocaine in a smokable form. With crack, the user feels the high immediately, but the euphoria fades quickly. It is an extremely addictive drug.



Cocaine abuse causes headaches, chronic fatigue, and destruction of nasal tissue. Pregnant women who abuse cocaine can have infants with birth defects. Cocaine addicts often lose their ability to work and have relationships. Signs of an overdose of cocaine include hallucinations, convulsions, nervousness, and high body temperature. An

overdose of cocaine may result in kidney failure and death.

*AMPHETAMINES (Speed)*

Like cocaine, amphetamines are stimulants. They stimulate the nervous system, increasing physical activity, energy, mental alertness, and self-confidence, and producing euphoria. Medically, amphetamines are used to treat obesity, narcolepsy, and hyperactivity in children. For example, the amphetamine Ritalin is used to stimulate the brain center that helps hyperactive children sit still and pay attention.

As a drug of abuse, amphetamines are often referred to as “speed.” Many people abuse amphetamines to increase energy and alertness, and in some cases to combat fatigue brought on by use of alcohol, marijuana, or depressants. However, the body builds up tolerance to amphetamines, and greater and greater doses are required to achieve the same effects. Addiction may become severe.

Medically, amphetamines are taken orally, but many abusers inject the drug directly into a vein increasing the risk of overdose and infection. Needles shared to inject the drug can spread hepatitis and HIV. After an injection of amphetamines, the user experiences intense, short-lived euphoria. An addict may inject the drug several times a day for several days feeling little need for food or sleep. Mental depression and overwhelming fatigue follow abuse, which may cause the abuser to turn to amphetamines again for relief.

In addition to fatigue and depression, other side effects of amphetamine abuse include extreme anxiety, temporary mental illness, and malnutrition. High doses can cause hallucinations, increased body temperature, high blood pressure, convulsions,

kidney failure, lack of oxygen, bleeding of the brain, and death. Withdrawal symptoms include irritability, depression, disorientation, long periods of sleep, and not caring about anything.

### *METHAMPHETAMINE (Crank, Meth, Ice)*

Methamphetamine is a nervous system stimulant like amphetamines that is used medically in much the same way as amphetamines. This drug is abused to produce heightened awareness, alertness, and self-confidence. A smokable form of methamphetamine is “ice.” Like crack, it produces an intense high without the use of needles and is extremely addictive. Abuse of methamphetamine may result in bizarre behavior, sleeplessness, depression, high blood pressure, increased body temperature, convulsions, heart problems, seizures, and strokes.

Methcathinone, also called “cat” and “star,” is a designer drug similar to methamphetamine that can cause paranoia, slurred speech, tremors, extreme weight loss, and sleeplessness

### *BARBITURATES*

Barbiturates are a group of depressant drugs that include phenobarbital (goofballs), pentobarbital (yellow jackets), amobarbital (blue devils), and secobarbital (red devils). They lower body temperature and blood pressure, slow breathing and heart rate, and as such, have many medical uses. For example, doctors prescribe phenobarbital to reduce the frequency of convulsions in epileptics. Unfortunately, people frequently abuse barbiturates, sometimes causing physical and psychological dependency.



Signs of barbiturate abuse include fatigue, blurred vision, confused or slurred speech, lack of coordination and balance, a reduction of mental and physical activity, and decreased breathing. Abusers will often act like they are drunk, but there will be no smell of alcohol. Long-term abuse may result in double vision, depression, and forgetfulness.

Signs of an overdose of barbiturates include dilated pupils, a rapid pulse, shallow breathing, and clammy skin. An overdose can cause coma and death. Since barbiturates cause confusion and forgetfulness, accidental death occurs when a person has taken barbiturates, becomes confused, forgets, and takes more barbiturates. Accidental poisoning occurs when barbiturates are combined with alcohol. Withdrawal symptoms include anxiety, insomnia, tremors, delirium, and convulsions.

### *HEROIN (Antifreeze, Smack, Horse, Harry, Junk)*

Heroin is a narcotic. Doctors prescribe narcotics to relieve pain and coughs and to cause sleepiness. Heroin, however, is so addictive that it is not used as a medicine and is illegal. Once injected, sniffed, or smoked, it dulls the senses and produces a feeling of euphoria. Other effects include drowsiness and nausea.

Signs of an overdose include shallow and slow breathing, clammy skin, and convul-

sions. An overdose can result in a coma and death. Once addicted, a person must have more of the drug to keep from experiencing withdrawal symptoms, which are severe and can include panic, shaking, chills, sweating, cramps, and nausea.

### *LSD (Acid)*

LSD is a very powerful hallucinogen that scrambles and confuses the senses. A tiny drop taken with sugar or food can cause a person to “trip” or experience false visions, smells, and sounds for hours. Some people say these experiences are exciting; others say they are nightmares. Those having a “bad trip” may take dangerous or irrational actions to escape from this imaginary situation. In addition to these affects, LSD can cause nausea, vomiting, and misinterpretations of time and distance. Some people experience flashbacks of LSD’s effects days, weeks, and years after the original trip. An overdose of LSD can result in psychosis, accidental death, and suicide.

### *PCP (Angel Dust)*

PCP, used as a tranquilizer for animals, can cause frightening hallucinations when used by humans. Abuse can result in seizures, coma, and death or in violent, unpredictable behavior. Some abusers have committed murder and suicide.

### *PSILOCYBIN (Mushrooms, Shrooms)*

### *MESCALINE (Mesc, Buttons, Cactus)*

Two other hallucinogens are psilocybin, produced from a type of mushroom, and mescaline, produced from a type of cactus. Like other hallucinogens, use of these drugs can cause hallucinations, perception problems, nausea, vomiting, and, in extreme cases, mental illness, suicide, or accidental death. Mescaline effects, while compared to a mild

LSD trip, are often accompanied by sweating and severe abdominal cramps. Eating mushrooms poses another danger since many mushrooms look alike and some are poisonous enough to cause death.

### *INHALANTS (Air Blast)*

Inhalants are toxic chemicals like glue, freon, nail polish, spray paint, and gasoline that are huffed (sprayed into a cloth and held over the mouth and nose) or bagged (sniffed from a bag, bottle, or can) to achieve a brief, mild euphoria. All of these products contain labels warning against inhaling their fumes because of the hazards involved. Some inhalants used medically are also abused like amyl nitrate which relieves heart pain and nitrous oxide which relieves anxiety.

Risks involved with inhaling these chemicals include nausea; dizziness; vomiting; headaches; unconsciousness; pneumonia; permanent brain and nerve damage; bleeding of the brain; eventual liver, brain, and kidney cancer; and death due to heart failure and suffocation. Effects of inhalants are very unpredictable and depend on what chemical or chemicals are inhaled and how much. Brain damage and death may result after only one use depending on the inhalants involved.

### *ECSTASY (XTC, Love Drug)*

Ecstasy is a designer drug that closely resembles cocaine. It produces euphoria that lasts several hours, heightens pleasure, and may even produce hallucinations in high doses. Ecstasy is taken orally and may cause mood swings, overly friendly behavior, insomnia, anxiety, and nausea. In extreme cases, abuse may result in seizure and death.

### *ROHYPNOL (Roofies, Forget Pill, Date-Rape Pill)*

Rohypnol is used legally as a medical sedative in Europe and Latin America. As a drug of abuse, it is called roofies, forget pill, and date-rape pill. At first, it produces an alcoholic type of high, then heavy sedation and short-term memory loss that lasts up to eight hours. It earned its reputation as the date-rape pill by being slipped into the drinks of females, who were taken advantage of in a state of sedation brought on by the drug and then unable to remember exactly what happened to them. In addition to the drawback just discussed, dangers of abusing rohypnol include impaired motor skills and slow respiration.

### **CONCLUSION**

When drugs are properly used, they can cure illness and save lives. When abused, however, drugs can destroy lives and cause death. It is important to understand that, while people often abuse drugs to find happiness and fulfillment, drugs only create more problems and unhappiness. To keep from falling into the trap of drug abuse, stay smart, strong, and active. Say “no.” Recognize the different drugs that are abused in our society and what affect they have on people’s health and lives. Know what steps to take if you believe someone has overdosed or has consumed a dangerous amount of alcohol. You can set an example of an informed, drug-free individual.

## LESSON 2: DRUGS — USE AND EFFECT



*addiction*  
*dependency*  
*depressants*  
*designer drugs*  
*hallucinogens*  
*inhalants*  
*narcotics*  
*stimulants*

### INTRODUCTION

Drug abuse is one of the greatest threats to this society. It has ruined the lives of individuals and families; it causes unnecessary sickness and death; it is at the root of many of the most horrible and senseless crimes; and it wastes millions of dollars. For all these reasons, it is obvious that all the people of this country need to work together to stop this problem.

You can do your part by taking control of your life and deciding not to use drugs. Your actions do have an effect. Each individual has the power to keep drugs from being a problem in his or her own life and the ability to influence others' decisions concerning drugs. First, you must know what drugs are and what they do. Next, you need to understand why people, especially young people, start using drugs and how to prevent yourself and others from using them. And finally, you must be able to recognize the symptoms of drug use and what you can do to help those in trouble.

## WHAT ARE DRUGS AND WHAT DO THEY DO?

### IMPORTANT TERMS

Before going further into this lesson, review the italicized terms in the following paragraphs, so you will know what they mean in relation to drugs.

A *drug* is any chemical substance that changes the function of the mind or the body. Aspirin is a drug; allergy medication is a drug; marijuana is a drug; beer is a drug; the nicotine in cigarettes is a drug. A drug is neither good nor bad — it is what a person does with a drug that makes the difference.

*Use*, *misuse*, and *abuse* are terms thrown around quite a bit when talking about drugs. *Use* is taking a legal drug as prescribed or recommended for medical reasons. *Misuse* is taking a legal drug for medical reasons but not as recommended or prescribed. *Abuse* is taking any drug, legal or illegal, for a non-medical reason in a way that can injure your health or ability to function. Taking drugs is a serious matter; there is no such thing as “recreational drug use.” Abusing drugs is not a sport or a hobby and always involves an unnecessary risk to your health.

When people talk about drugs, you often hear that someone is a drug *addict* or that a drug can or cannot cause *dependence*. *Addiction* and *drug dependence* mean basically the same thing; however, the term “addict” tends to make people think of a desperate individual living in the back alleys of a big city. But anyone from any background in any place can be addicted or drug dependent. People who are dependent cannot refuse the drug they have been abusing.

A person has a *physical dependence* on a drug when, after being deprived of the drug for any length of time, he or she experiences symptoms like nausea, vomiting, anxiety, watery eyes and nose, and an overwhelming desire to use the drug. Such symptoms are typical of *withdrawal sickness*. Withdrawal happens because the body's chemistry has been changed, causing the user to be unable to function comfortably without the drug.

Most people who are physically dependent are also *psychologically dependent*. Some have psychological dependence without the physical dependence, which can be an equally strong dependence. With this type of dependence, the user feels a powerful motivation to continue abusing a drug for the temporary pleasure or relief of discomfort the drug gives. Since the mind and the body work together very closely, it is often difficult to tell the difference between physical and psychological dependence. The mental craving for a drug may be so powerful that it seems to be a physical need.

## TYPES OF DRUGS

Most likely, you have already heard a lot about drugs from all different sources — school drug prevention programs, friends, the media, your parents, etc. Keep in mind the source when drugs are discussed; some of what you hear may be incorrect or not the full story. It is, therefore, important to know exactly what the different kinds of drugs are, whether their use is legal or not, and what they can do to you if you use, misuse, or abuse them. Being accurately informed can help you decide whether abusing drugs is worth the risk.

## STIMULANTS

### *Amphetamines and Methamphetamines*

Amphetamines (Speed, Uppers, Ups, Black Beauties, Pep Pills, Copilots, Bumblebees, White Crosses, Benzedrine, Dexedrine, Footballs, Biphetamine) look like capsules, pills, or tablets. Methamphetamines (Crank, Crystal, Meth, Crystal Meth, Methedrine, Ice) can be in the form of a white powder, pills, or a rock which resembles blue paraffin. Forms of both drugs are used medically to treat obesity, narcolepsy, and hyperactivity in children.



**Stimulants** are abused for the quick high and the false sense of energy, self-confidence, well-being, and power they give. The effects of these drugs quickly wear off, leaving the user tired and depressed. Sometimes, the user will then use more of the drug to counteract the “down” feeling, called crashing, which starts a cycle that leads to drug dependence. The repeated use of high doses of amphetamines in a short period of time, known as speeding, is very dangerous and can even be fatal. Heavy users may develop a feeling of paranoia, which can lead to violent behavior. An overdose can cause a collapse of the circulatory system, convulsions, coma, and death.

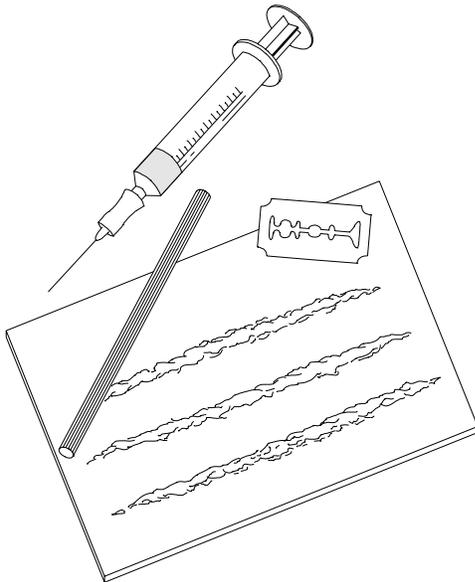
Stimulants increase heart and respiratory rates, elevate blood pressure, dilate the pupils, and decrease appetite. In addition, users may experience sweating,

headaches, blurred vision, dizziness, sleeplessness, and anxiety. Extremely high doses can cause rapid or irregular heartbeat, tremors, loss of coordination, and even physical collapse. An amphetamine injection creates a sudden increase in blood pressure that can result in stroke, very high fever, or heart failure.

Users often report feeling restless, anxious, and moody. Higher doses intensify the effects. People who use large amounts of amphetamines over a long period of time can develop an amphetamine psychosis that includes hallucinations, delusions, and paranoia. These symptoms usually disappear when drug use ceases.

### *Cocaine, Crack, and Bazuco*

Cocaine hydrochloride (Cocaine, Coke, Snow, Flake, Rock, White, Blow, Nose Candy) is an illegal drug that looks like white crystalline powder and is often diluted with other ingredients. It is inhaled through the nose, injected, or smoked.



Cocaine gives the user a high like an intense amphetamine high — a temporary feeling of pleasure, seeming to relieve fatigue and reducing the appetite. Regular use can

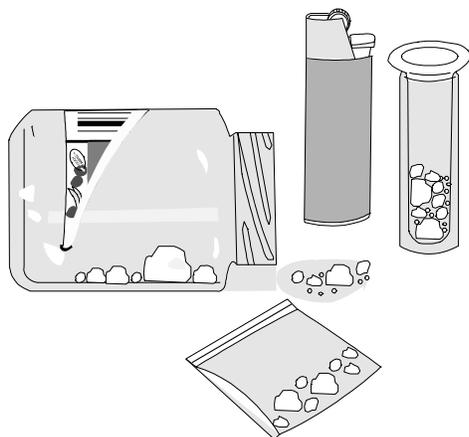
lead to hallucinations of touch, taste, sound, or smell. Tolerance develops rapidly with repeated use. As cocaine's effects wear off, the user feels exhausted, depressed, and sometimes paranoid, similar to the crashing of amphetamines. Cocaine is considered to be one of the most potentially addictive drugs.

Cocaine stimulates the central nervous system. Immediate effects include dilated pupils and elevated blood pressure, heart rate, respiratory rate, and body temperature. Occasional use results in a stuffy nose, while chronic use decays the mucous membranes of the nose. Injecting cocaine, or any drug, with a shared needle may spread AIDS, hepatitis, and other diseases. Cocaine produces both psychological and physical **dependency**.

Dealers cut cocaine with other substances, usually table sugar, mannitol, lactose, dextrose, and other drugs (PCP, lidocaine, amphetamines). Strychnine, a poison, has been found in cocaine; talc, which damages the lungs, is also often used.

Occasional use of cocaine can lead to heavy, uncontrollable use, with the dependence becoming so strong that users will not quit even when cocaine severely damages their lives. When users do quit, they may not experience strong physical withdrawal symptoms, but they do become depressed, irritable, tired but unable to sleep, and constantly crave the drug.

Crack (Crack, Freebase Rocks, Rock) looks like brown, beige pellets or crystalline rocks that resemble lumpy soap and is often packaged in small vials. It is smoked. Bazuco is a drug similar to crack. Both of these drugs are illegal.



Crack is street cocaine commonly processed with boiling water and baking soda, which produces a very pure form of cocaine. The effects and the risk of addiction to crack are so great, however, that it is like a completely different drug. It is many, many times more dangerous than cocaine hydrochloride. Its effects are felt within 10 seconds. Cocaine in this form creates a very intense high and a fast, strong addiction. The user also experiences an incredible low after the high has worn off, often throwing him or her into a deep depression. To offset this depression, the user then smokes more crack, starting the compulsive cycle that leads to a severe dependency. The only person who benefits from this vicious cycle is the drug dealer who now has a desperate customer in constant need of his or her product.

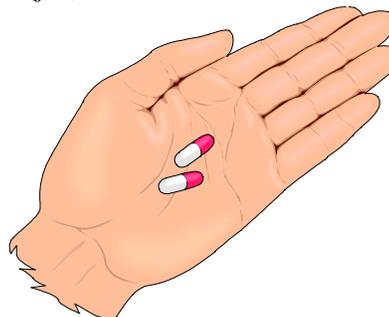
Physical side effects of crack include dilated pupils, increased pulse rate, elevated blood pressure, insomnia, loss of appetite, hallucinations of touch, paranoia, and seizures. A major concern with crack is that dependency is almost immediate. The first experience is often very pleasurable. Then, the extreme low afterwards is a strong motivator to use the drug again right away, this time to relieve bad feelings. Users of crack are addicted before they know it, turning their lives upside down.

Another form of cocaine, bazuco, is equally, if not more dangerous and addictive than crack. Its use originated in Colombia and other South American countries and has now made its way to the United States. It is made from the intermediate step between the coca leaf and the cocaine hydrochloride, called cocaine sulfate. It is mixed with a number of other substances, among them marijuana, methaqualone, and acetone. Its effects are similar to those of crack, as are its dangers and its quick addiction.

The use of any type of cocaine can cause death by disrupting the brain's control of the heart and respiration.

### *DEPRESSANTS*

#### *Barbiturates, Methaqualones, and Tranquilizers*



Barbiturates (Downers, Barbs, Blue Devils, Red Devils, Yellow Jacket, Yellows, Nembutal, Seconal, Amytal, Tuinal, Luminol, Amytal, Pentothal, Phenobarbital) look like red, yellow, blue, or red and blue capsules. Methaqualones (Ludes, Quaaludes, Quads, Sopors, Sopes, 714s) look like tablets. Tranquilizers (Valium, Librium, Equanil, Miltown, Serax, Tranxene, Thorazine) look like tablets or capsules.

Barbiturates are used medically as an anesthetic and to treat insomnia and convulsions. Barbiturates' effects vary from person to person and even change within one person from one time to the next. When abused, the symptoms they produce are similar to those of alcohol. Small amounts can produce calmness and relaxed muscles, but larger doses cause slurred speech and staggering walk. Like alcohol, they distort perception and slow reaction time, which can cause serious accidents like car crashes. Very large doses can cause respiratory depression, coma, and death.

Barbiturate abusers often become extremely depressed, tired, and hopeless. They may reach for the rest of the bottle to “end it all” when in this mental state, or they may become confused, forget how many pills they have taken, and accidentally overdose. For this reason, barbiturates are one of the leading causes of drug-related deaths. The combination of barbiturates and alcohol can multiply the effects of both drugs, thereby multiplying the risks. This multiplication of the effects of two separate drugs when taken together is called the synergistic effect. It can be fatal.

Methaqualone production has been banned since 1984 due to its widespread misuse and minimal medical value. Abusers take it to produce a feeling of elation; however, its side effects are headaches, nosebleeds, dizziness, loss of coordination, and leg and arm pain. Tolerance and psychological dependence can develop when used regularly. Using methaqualone with alcohol is known as “luding out” and can cause death.

Tranquilizers are used medically to treat anxiety, insomnia, and convulsions. It is very easy to become both physically and psychologically dependent on them. When mixed with alcohol, they can cause death.

## Alcohol

Ethyl **alcohol** or ethanol (beer, wine, wine coolers, champagne, whiskey, rum, vodka, tequila, gin, bourbon, scotch, liqueur, etc.) is a socially acceptable and legal drug for those over 21 years of age. Because of its widespread use and acceptance, many do not consider it a drug or even dangerous. But it is a drug and in excess can be very dangerous.

As a depressant, moderate amounts of alcohol cause people to relax and feel cheerful. Greater amounts result in loss of coordination, slurred speech, changes in personality and mental functions, loosening of inhibitions, intensification of feelings such as anger and sadness, impairment of clear thinking and judgment, and a false feeling of warmth while the body is actually losing heat.

The extent of alcohol's effects on an individual is determined by his or her blood alcohol concentration (BAC), which is a measure of the amount of alcohol in the bloodstream per 100 milliliters of blood. The table below shows how a person of average weight is affected by increasing blood alcohol concentrations.

BAC	Effect
.04	Heart rate increases
.06	Judgment affected
.10	Vision, speech, and coordination affected
.30	Loss of control
.40	Loss of consciousness
.50	Coma; decreased heart rate, blood pressure, and breathing; eventual death

A drinker's gender and weight, the amount of alcohol consumed, the time in which the alcohol is consumed, and the amount of food eaten in conjunction with the consumption of alcohol all make a difference in how alcohol affects the drinker. The table

below demonstrates how weight, gender, and the time in which alcohol is consumed affect BAC assuming the alcohol is consumed on an empty stomach. Note that one drink is equivalent to a shot glass (1.25 ounces) of hard liquor, a glass of wine (5 ounces), or a bottle of beer (12 ounces).

Weight/ Gender	2 drinks in 2 hrs.	2 drinks in 1 hr.	3 drinks in 2 hrs.	3 drinks in 1 hr.
120 lb. F	.05	.06	.09	.10
120 lb. M	.04	.05	.07	.08
180 lb. F	.02	.04	.05	.06
180 lb. M	.01	.03	.04	.05

Individual states decide at what BAC a person is driving drunk. For most states, it is either .08 or .10 for adults over the age of 21, and .01 or .02 for people under the age of 21. The numbers for youths are very low, because legally, they cannot drink until they are over 21 and are therefore breaking the law if they consume any alcohol at all. Individual states also decide the punishment for drunk driving, which can include fines, driver's license suspension, and vehicle impoundment. In many states, it takes only one drunk driving offense to result in license suspension anywhere from one week to six months.



Giving someone who is drunk a cold shower or black coffee does not make the person less drunk. These practices just make the person more awake, but he or she is still

drunk and impaired by a high BAC. Time is the only antidote for drunkenness. A drunk person should be kept from driving or participating in any other activity that requires coordination or judgment for several hours after the last drink.

Because of inexperience with alcohol, young people often overestimate their ability to handle the drug. The practice of “chugging beer” and other social drinking activities can produce a quick buildup of alcohol in the bloodstream, resulting in a dangerously high BAC. Young people have died unnecessarily when participating in this kind of “a good time.”

Additionally, young people are still developing socially, physically, mentally, sexually, and emotionally; alcohol can interfere with these developments and become a serious problem in already complicated lives. Studies show that drinking as a teenager can increase the risk of developing alcoholism, a chronic, progressive and sometimes fatal disease that requires professional treatment. Remember, 1 out of 10 drinkers becomes an alcoholic, and they can be mothers, fathers, professionals, laborers, doctors, teachers, students, etc. Children of alcoholics also run a greater risk of becoming alcoholics than children of non-alcoholics. Inherited body chemistry is probably responsible for this occurrence.

As mentioned previously in the section on barbiturates, mixing alcohol with other **depressants** can be fatal. The following is a list of other drugs that interact negatively with alcohol.

- Antibiotics and alcohol may weaken the antibiotics and cause drowsiness and vomiting.
- Antihistamines and alcohol may cause drowsiness.

- **Narcotics** and alcohol cause depression of the central nervous system and can arrest the respiratory system.
- Non-narcotic pain killers (such as aspirin) and alcohol may cause stomach and intestinal irritation and possible bleeding.
- Tranquilizers with alcohol cause depression of the central nervous system.

### *HALLUCINOGENS (PSYCHEDELICS)*

**Hallucinogens** alter the physical senses, producing visions, sounds, and smells that are not real, and distorting the concepts of time and space in the user's mind. Since these drugs confuse fact and fantasy, a user may become irrational and resort to violence or suicide to avoid an imagined situation or attacker. Hallucinogens are not physically addictive, but users often become psychologically dependent on these drugs.

#### *Phencyclidine Hydrochloride*

Phencyclidine hydrochloride (PCP, Angel Dust, Hog, Superjoint, Busy Bee, Green Tea Leaves, DOA <dead on arrival>) can be in the form of a liquid, capsules, white crystalline powder, or pills. Of the various types of hallucinogens, only PCP has a medical use as a tranquilizer for animals.

PCP interrupts the functions of the neocortex, which is the section of the brain that controls the intellect and keeps instincts in check. The effects of PCP are unpredictable, but users frequently report a sense of distance and alienation from the world and others. Sometimes a user may feel drunk, but at other times the same dose may cause depression, paranoia, hallucinations, and suicidal thoughts. Time and movement are slowed down; muscular coordination worsens; senses are dulled; and speech is blocked and incoherent.

PCP stays in the system for a long time. Chronic users report persistent memory problems and speech difficulties as well as psychological and behavioral changes. Some of these effects may last six months to a year following prolonged daily use. Mood disorders such as depression and anxiety also occur, and users may exhibit paranoid and violent behavior. In fact, many deaths attributed to PCP do not occur from the drug itself, but from accidents, like falling from high places, drowning, or car wrecks, related to the behavior PCP produces. Large doses of PCP can cause convulsions and coma, heart and lung failure, or ruptured blood vessels in the brain. Treatment for an overdose is very difficult and requires hospitalization.

#### *Lysergic Acid Diethylamide, Mescaline, Peyote, and Psilocybin*

Lysergic acid diethylamide (LSD, Acid, White Lightning, Blue Heaven, Sugar Cubes, Microdot) can come as brightly colored tablets, imprinted blotter paper, thin squares of gelatin, or as a clear liquid. Mescaline and peyote (Mesc, Buttons, Cactus) come as hard brown discs, tablets, or capsules. Psilocybin (Mushrooms, Shrooms) is fresh or dried mushrooms.

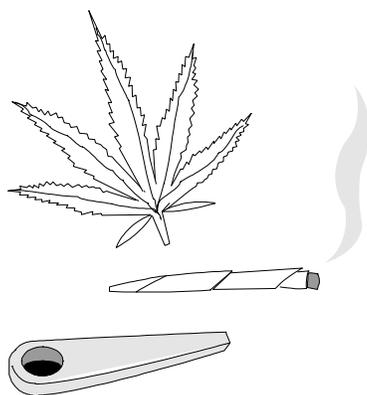
The physical effects of these drugs may include dilated pupils, elevated body temperature, increased heart rate and blood pressure, loss of appetite, sleeplessness, tremors, chills, fever, and nausea. Sensations may be confused and feelings may change rapidly. Music may appear as colors and colors as flavors or odors.

Some users have bad psychological reactions and may experience panic, confusion, suspicion, anxiety, and loss of control when they realize these effects cannot be stopped. They may be terrified by paranoid feelings and become dangerous to themselves

and others. Delayed effects, or flashbacks, can occur even after use has ceased.

A “trip” from an average dose of LSD can last as long as 8 to 10 hours. LSD’s effects are unpredictable, tolerance to it develops quickly, and its use frequently results in psychological dependence.

## MARIJUANA



Marijuana (Acapulco Gold, Ganga, Grass, Mary Jane, Pot, Weed, Reefer, Stick, Smoke) comes from the dried flowers, leaves, and small stems of the cannabis plant. It is smoked in cigarettes, known as joints, and also in pipes. Marijuana use is illegal in the United States, but in the past was used medically to reduce swelling of the eyes caused by glaucoma and to counteract the intense nausea brought on by certain cancer treatments. Its legalization, especially for these medical purposes, has been a controversial subject in this country for years.

The chemical tetrahydrocannabinol (THC) produced by cannabis is the main psychoactive substance that produces marijuana’s mind-altering effects. THC is quickly absorbed into the lungs, then travels through the blood to affect the brain. It distorts the senses, including hearing, taste, touch, and smell, and alters sense of time and place, as well as feelings. THC affects sleep patterns and remains in body fat for at least a month

after only one joint has been smoked. It causes users to crave food (getting the munchies) and to enjoy eating, which is unusual for a drug. It also tends to dull sexual urges and pleasure.

There are several hundred other chemicals in marijuana that vary between different types of cannabis plants and between plants grown during different seasons. This explains why the effects of marijuana vary from person to person and from one use to the next. Marijuana can also contain dangerous substances like pesticides and molds and is sometimes mixed with PCP to make the user believe it is more potent.

Because marijuana is widely abused today and has been around for thousands of years, many people believe that its use poses no harm. However, research studies prove this notion wrong. Effects include:

- Short-term memory loss and shortened attention span, both of which interfere with the ability to learn. Heavy, long-term use is often called “burn out” because the user’s thinking is slow and confused.
- Increased heart rate and irregular heart-beat.
- Weakening of the immune system.
- Reduced hormone levels resulting in lower sperm counts in males and irregular menstrual cycles in females.
- Development of “amotivational syndrome,” which results in apathy and loss of ambition and drive.
- Impaired judgment, unsteadiness, lack of coordination, and slowed responses, which make driving a dangerous activity.

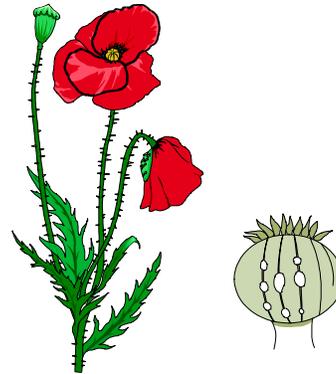
- Lung damage and increased risk of lung cancer. This risk is higher than that of smoking tobacco cigarettes, since marijuana is inhaled more deeply and then held in the lungs for a longer period of time. Joints also lack filters to cut down on harmful chemical effects.
- Possible depression and moodiness. Some users feel tired and unhappy the morning after smoking marijuana and may respond by smoking a joint to feel better. This cycle may lead to psychological dependency.
- Possible intense fear and anxiety, called a “pot panic” and even paranoia and psychosis. This may occur if the marijuana contains higher levels of THC.
- Development of a tolerance to marijuana resulting in the need for greater amounts in order to feel any effects. This may also contribute to psychological dependence.

Because of all the effects marijuana has on the mind, body, and the ability to learn, its use may be particularly harmful to young people since they are still maturing physically, sexually, and mentally. Marijuana’s effects may prevent you from becoming a healthy, normal adult.

### NARCOTICS

Most narcotics are opiates, which come from the seed pods of opium poppies. Many are used medically to relieve pain and treat insomnia. Narcotics abuse initially produces a feeling of euphoria that is often followed by drowsiness, nausea, and vomiting. Users also may experience constricted pupils, watery eyes, and itching. An overdose may produce slow and shallow breathing, clammy skin, convulsions, coma, and death. Tolerance develops rapidly and dependence is likely.

The use of contaminated syringes to inject certain kinds of narcotics may result in diseases such as AIDS and hepatitis.



### *Opium, Codeine, Morphine, and Others*

Opium (Paregoric, Dover’s Powder, Parepectolin) can look like dark brown chunks or a powder. Codeine comes in different drugs such as Empirin, Tylenol, and certain cough medicines. It is either a dark liquid varying in thickness or comes in capsules or tablets. Morphine (Pectoral Syrup) comes in the form of white crystals, hypodermic tablets, and injectable solutions. Other types of opiates include Percocet, Percodan, Tus-sionex, Fentanyl, Darvon, Talwin, and Lomotil and come as tablets, capsules, or liquids.

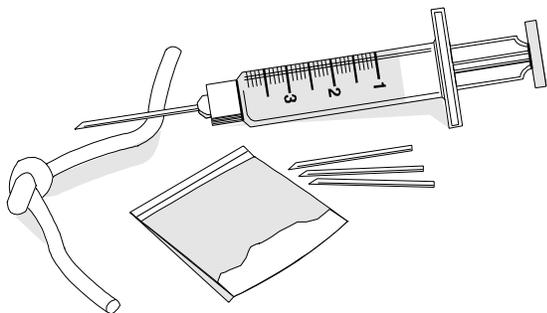
Codeine is one of the weakest narcotics. Doctors prescribe it for coughs and pain relief. Opium is also a weaker narcotic, but it has side effects that make it undesirable as a medication, including slowed heart rate, breathing, and mental abilities, and loss of appetite. Morphine is a very strong painkiller, but since it is also very addictive, it is used in medicine only for severe cases, such as in the later stages of terminal cancer when patients are in extreme pain. Unfortunately, as a drug of abuse, morphine usually results in addiction. Withdrawal from it has painful and severe effects and generally requires the help of a professional to get an addict off the drug.

### *Heroin and Methadone*

Heroin (Smack, Horse, Junk, Harry, H, Brown, Black Tar, Antifreeze) looks like a white to dark brown powder or a tar-like substance. Methadone Hydrochloride (Dolophine, Methadose, Methadone) comes in the form of a solution.

#### **DID YOU KNOW?**

Many injured soldiers during the Civil War became morphine addicts because they were given the drug as a painkiller. To cure their addiction, heroin was made legal in 1874. Unfortunately, heroin also proved to be highly addictive.



Heroin is a concentrated form of morphine and is so addictive that it is illegal in the United States even for medical use. Unfortunately, it is the most abused narcotic in this country, and its use is on the rise as of the late 1990s. Users of heroin often start by sniffing or smoking the drug in powdered form. Because tolerance develops quickly, they often turn to “mainlining,” the practice of injecting a heroin solution into their veins to intensify the drug’s effects.

Heroin dulls the senses, easing tensions, fears, and worries. A stupor follows that lasts for several hours in which hunger and thirst are reduced. After 12 to 16 hours without heroin, the user will experience

severe withdrawal symptoms, including sweating, shaking, chills, nausea, diarrhea, abdominal pain, leg cramps, and severe mental and emotional pain. To relieve these symptoms, the user must take another dose of the drug. People addicted to heroin often die young, some from overdoses caused by unreliable drugs, others because they cannot distinguish between safe and dangerous doses.

Methadone’s effects are similar to those of heroin and morphine. It is used in some drug rehabilitation programs to treat heroin addiction, because it blocks the user’s need for heroin and prevents withdrawal symptoms. When used illegally without medical supervision, however, it can also cause dependence.

### *DESIGNER DRUGS*

Illegal drugs are defined in terms of their chemical formulas. To get around these legal restrictions, underground chemists slightly change the molecular structure of certain illegal drugs to produce analogs, known as synthetic or **designer drugs**. While these analogs are meant to produce effects similar to those of specific illegal drugs, in many cases they are much stronger and more dangerous than the drugs they are designed to imitate.

Examples of narcotic analogs include China White and New Heroin, both of which look like a white powder resembling heroin. Use of these analogs is responsible for an increased number of deaths among first-time experimenters and heroin-dependent users. Some narcotic analogs have caused symptoms like those of Parkinson’s disease — uncontrollable tremors, drooling, impaired speech, paralysis, and irreversible brain damage.

Ecstasy (Ex, MDMA) is an example of a stimulant analog that mimics cocaine. It produces euphoria and heightens pleasure, but may also cause mood swings, overly friendly behavior, insomnia, anxiety, and nausea. In high doses, it may produce hallucinations, and in extreme cases, abuse may result in seizure and death.

Other stimulant analogs that resemble amphetamines and methamphetamines can cause nausea, blurred vision, chills, sweating, and faintness. Psychologically, they may cause anxiety, depression, and paranoia. As little as one dose can cause brain damage.

Use of analogs is simply not worth the risk. One wrong choice and they will deprive you of making *any* other choices.

### *INHALANTS*

**Inhalants** include fumes from chemical products like paint thinner, glue, cleaners, gasoline, and lighter fluid; propellants added to sprayable products like paint, deodorant, whipped cream, and hair spray; and products used medically for various reasons, like nitrous oxide which relieves anxiety. Abuse of the fume-type of inhalants is most popular with teenage boys, but can occur among children as young as the age of seven.

The fumes from many chemical products can be very dangerous, which is why these products contain warning labels against inhaling their fumes. Those who deliberately disregard these warnings are at risk of permanent brain and nerve damage and even death from heart failure, depressed breathing that eventually stops, and suffocation due to the displacement of oxygen in the lungs.

### **SIGNS OF DRUG ABUSE**

- ⇒ Dilated pupils
- ⇒ Missed appointments
- ⇒ Lying
- ⇒ Unexplained increases in energy followed by fatigue and depression
- ⇒ Anxiety
- ⇒ Memory loss
- ⇒ Pale and perspiring skin
- ⇒ Runny nose
- ⇒ Nosebleeds
- ⇒ Hyperactivity
- ⇒ Jumpiness
- ⇒ Ability to go without food or sleep for long periods of time
- ⇒ Suspiciousness and paranoia
- ⇒ Lack of care with personal appearance
- ⇒ Inability to explain what money is spent on

All of these signs of drug abuse may also be caused by other medical, psychological, or personal problems, so if a friend or family member is showing one of the signs, it is in no way an absolute indication that he or she is abusing drugs. Before jumping to conclusions, consider how frequently these signs occur and whether or not the person showing the signs has a logical explanation for them other than drug abuse. Expressing concern and asking questions is the best way to get a person to confide in you.

### **CONCLUSION**

If a friend or family member is abusing drugs, make it clear that you care about him or her, but that you do not approve of his

or her habit. Encourage the person to break the habit and support any effort on the part of the person to do so. Find out where the person can seek help and encourage him or her to get it.

## LESSON 3: TOBACCO — USE AND EFFECT



*bronchitis*  
*carbon monoxide*  
*dependency*  
*emphysema*  
*gateway*  
*hypertension*  
*nicotine*  
*second-hand smoke*  
*stimulant*  
*tar*



### INTRODUCTION

Many people hold the view that experimentation with or use of tobacco is considered normal or acceptable behavior. However, the use of tobacco often progresses to further drug abuses. Accordingly, some experts attach the term “**gateway**” to this substance. Use of drugs such as cocaine and heroin is unusual in those who have not previously used tobacco.

Tobacco’s hazards include cancer and other diseases and can also have ill effects on others. As awareness of these ill effects reaches new heights, more and more Americans are joining forces to fight tobacco abuse everyday.

### TOBACCO

#### USE

In addition to smoking cigarettes, pipes, or cigars, people who use tobacco products can also do so orally in the forms of chewing tobacco (by placing a wad between the cheek and teeth and sucking on it) and snuff (by placing a pinch between the lower lip and teeth).

### EFFECTS

Three major components make up tobacco, each having their own ill effects. One such component, **tar**, causes a variety of cancers and contributes to **emphysema** and other respiratory problems. For this reason, people often choose to smoke low-tar cigarettes, but even low-tar cigarettes can be unsafe because smokers often smoke more while using these brands. **Carbon monoxide**, also found in tobacco, restricts the oxygen-carrying capacity of the blood, and can often cause insufficient heart operation. **Nicotine**, the substance in tobacco believed to cause **dependency**, is absorbed into the bloodstream, reaching the heart and brain within a few seconds of the onset of smoking.

#### DID YOU KNOW?

Nicotine in its pure state is a toxic poison and is used in insecticides.

It only takes one cigarette to:

- Speed up your heartbeat
- Increase your blood pressure

- Upset the flow of air in your lungs
- Cause a drop in the skin temperature of your fingers and toes

### DID YOU KNOW?

Infections, especially pneumonia and acute bronchitis, are twice as common in young children whose parents smoke than children with non-smoking parents.

Some of the diseases associated with long-term tobacco smoking include chronic **bronchitis**, emphysema, coronary heart disease, and lung cancer. Lung cancer is the leading cause of death among women today. Cigarette smoking is a major independent risk factor for heart attacks (sometimes fatal) in both men and women. Pipe and cigar smokers are more prone to dying from cancer of the mouth and throat than non-smokers. Smoking also reduces the effectiveness of prescription and over-the-counter medications.

Although chewing tobacco and snuff are not smoked, they increase the risk of disease and damage to the delicate lining of the mouth and throat. As a result, individuals who use these products are more likely than non-users to develop mouth cancer, throat cancer, and gum disease. Chewing tobacco and snuff can also contribute to heart disease and strokes. The harmful effects of one can of snuff are equal to that of about sixty cigarettes.

Despite the labels required by federal law warning individuals about the hazardous effects of using tobacco products, use continues.

Recent research has indicated that non-smokers who breathe in **second-hand**

**smoke** (smoke that escapes from the burning end of a cigarette as well as the smoke exhaled by the smoker), can have an increased risk of lung cancer, heart disease, and respiratory disorders. Inhaling second-hand smoke makes the heart beat faster, the blood pressure go up, and the level of carbon monoxide in the blood increase. Smoke from an idling cigarette contains even more tar and nicotine than an inhaled one, in addition to more cadmium, a substance which has been related to **hypertension**, chronic bronchitis, and emphysema.

As the public becomes more aware of the dangers of inhaling second-hand smoke, the legislation protecting the rights of non-smokers continues to increase. Smoking is increasingly being banned in both public and private places.

### DID YOU KNOW?

Each year more than 350,000 Americans die from smoking-related diseases.

### PREVENTION

Because many young people give peer pressure as a reason for smoking, there is much that students can do to aid in smoking prevention. They can become involved in local organizations in an effort to extinguish peer pressures common to young adults.

- ⇒ The American Lung Association and its affiliates have developed a peer counseling program that can be implemented at high schools to promote the hazards of smoking.
- ⇒ *Students-Teach-Students* is a program that trains interested high school students to present smoking education programs and

act as role models to fifth graders, helping them to overcome peer pressure to smoke.

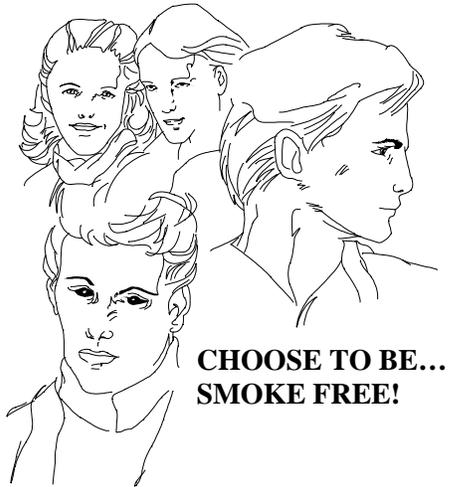


If you know someone who is seeking help in an effort to quit smoking, you may call a local chapter of the American Cancer Society or the American Cancer Society itself at 1-800-ACS-2345. Narcotics Anonymous, an organization similar to Alcoholics Anonymous, can provide support for those who desire treatment. Local chapters of the American Lung Association and the American Heart Association can also provide up-to-date information and resources.

### WAYS TO SAY “NO”

Today’s young adults experience a great deal of peer pressure to experiment with or use alcohol and tobacco. One way to deal with this peer pressure is to be prepared to offer quick responses when such situations occur. The following are some quick-response ideas that you can use to plan ahead.

1. I’m not into body pollution.
2. I’m kind of depressed, so I don’t think I should try it today.
3. Not today, or, not now.
4. Nope, I don’t want the hassle.
5. I can’t — my mom can smell it on me when I get home.
6. No thank you.
7. When I need it, I’ll let you know.
8. I get grounded if I look sideways at my kid sister. I’d hate to think what would happen if my dad caught me smoking.
9. No thanks; I’ll wait until it’s legal.
10. No thanks. My grades are bad enough.
11. I’m into vitamins.
12. Not for me, thanks. I’m not into chemicals.
13. No thanks. I’m allergic.
14. No. I need all the brains I’ve got.
15. I don’t want to die young.
16. I’m into health.
17. I have a big test tomorrow, and I’d like to remember what I study tonight.
18. Some other time.
19. If the coach finds out, I’ll have to run laps.
20. No thanks. I just read a new study on its harmful effects.



## CONCLUSION

While the damaging effects of tobacco use remain obvious, it has also become clear that even non-users of this substance can experience problems. More and more people are being affected every day. Because any use by young people is considered harmful and can have a dramatic effect on life and preparation for the future, challenge yourself and others to pledge not to use this dangerous substance.

## LESSON 4: ALCOHOL — USE AND EFFECT



*depressant  
distilled  
ethyl alcohol  
ferment  
gateway  
intoxicated*

### INTRODUCTION

Many people hold the view that experimentation with or use of alcohol is considered normal or acceptable behavior. However, the use of alcohol often progresses to further drug abuses. Accordingly, some experts attach the term “**gateway**” to this substance. Use of drugs such as cocaine and heroin is unusual in those who have not previously used alcohol.

Alcohol abuse can cause serious chemical dependencies, harmful physical and psychological effects, and much suffering by family and friends. As awareness of these ill effects reaches new heights, more and more Americans are joining forces to fight alcohol abuse everyday.

#### **DID YOU KNOW?**

Alcohol is legal only to those of legal drinking age, and legal drinking ages differ in and are regulated by the individual states.

## ALCOHOL

### *USE*

Alcohol is a natural substance formed when sugar and yeast react and **ferment**. It is a drug — a **depressant** that is absorbed into the bloodstream and transmitted to virtually all parts of the body.

There are many different kinds of alcohol, but the kind found in wine, beer, and **distilled** spirits is called **ethyl alcohol**. A bottle of beer, a glass of wine, and a shot of hard liquor all have approximately the same amount of pure alcohol — a little more than one-half ounce.

Youths are particularly susceptible to the side-effects of alcohol. There is no such thing as a totally “safe” use of any mind-altering drug by young adults. Alcohol is more harmful to youths than adults for a variety of reasons. Since their bodies are still developing and changing both physically and chemically, alcohol causes more physical and emotional damage to teenagers than adults. A teenager’s use of alcohol greatly increases his or her chances of becoming an alcoholic later in life.

#### **DID YOU KNOW?**

- Ninety percent of teenage automobile accidents involve alcohol.
- Drinking and driving accidents are the leading cause of death among 15-24 year olds.
- Seventy percent of teenage suicide attempts involve alcohol.

## EFFECTS

The effects of ethyl alcohol on the human body can range greatly depending on:

- Size of the individual
- How empty the stomach is at the time of alcohol consumption
- State of health and fatigue
- Mental attitude
- Speed and amount of consumption.

Although alcohol may make a person feel “high,” alcohol is actually considered a “downer” drug. It slows down or depresses the central nervous system causing slowed reactions, slurred speech, impaired coordination and judgment, and sometimes unconsciousness. Because alcohol affects reaction time, coordination, and judgment, people under its influence are more accident prone and less likely to make wise decisions. For these reasons, drinking and driving are a very dangerous combination — and illegal.

Long-term effects of alcohol abuse include alcoholism; cancers of the liver, stomach, colon, larynx, esophagus, and breast; high blood pressure; heart attacks; strokes; stomach ulcers; birth defects; premature aging; and a diminished immunity to disease due to non-function of infection-fighting cells. In men, hormone levels change causing lower sex drives and enlarged breasts, while women’s menstrual cycles become irregular, possibly resulting in infertility.

The list goes on to include shrinking of the muscles, including the heart; kidney, bladder, and pancreas damage; brain damage affecting vision and memory; depression; and

mental illness. Obviously, long-term damage from alcohol abuse can be irreversible and result in death.

Less obvious than these physical effects, but just as tell-tale, are the warning signs that indicate alcohol consumption is too high. Ask yourself the following questions when looking for signs of a problem with alcohol in friends or family members:

- Does the person pour a drink as an immediate reaction when faced with problems?
- Has the person become argumentative and moody?
- Does the person drink until **intoxicated**?
- Does the person miss school, work, or other activities because of drinking?
- Does the person attempt to handle social celebrations and stress with alcohol?
- Does the person get angry when confronted about alcohol abuse?
- Does the person ever drive a car after drinking?



If you answer “yes” to any of these questions, see a counselor or someone who is

trained to provide treatment and support. Show you care by learning the best way to help your friend or family member.

While the above questions can alert you to possible problems with alcohol, it is important to remember that any use of alcohol by young adults is considered abuse and cause for concern.

### **FIRST AID TREATMENT FOR EXCESSIVE ALCOHOL CONSUMPTION**

If the situation permits, before doing anything else, call poison control or the nearest emergency room and tell them what the person has taken, describe his or her symptoms, and seek advice on what action to take. In general, follow these rules:

- If the victim is conscious and took the overdose in the last thirty minutes, make him or her vomit.
- Keep the victim awake and conscious.
- Protect overly active, aggressive, or panic-stricken victims from hurting themselves, you, or others.
- Place an unconscious victim on his or her side, so that if the victim vomits, he or she will not choke or drown in it. This position also allows good respiration.
- Monitor the victim's breathing.
- Maintain the victim's body temperature.
- Reassure the victim that he or she will be okay.
- If the victim is having convulsions, do not put anything in his or her mouth. Clear

away furniture and sharp objects, and move the victim only if he or she is near a fire, glass door, stairway, or other danger.

- Keep any evidence, including any material vomited, to help medical personnel determine what and how much the person took.

Call for Emergency Medical Services or transport the victim to a hospital or doctor.

### *PREVENTION*

If someone you know has a problem with alcohol, try to be understanding and supportive. Listen to the reasons for the use, and assist the user in finding help. Educate the user on the harmful effects of alcohol, and explain why counseling and/or treatment is important.

Many local and national organizations offer information and help on alcohol abuse, and almost every telephone book in the nation lists telephone numbers for these programs.

- Alateen is a self-help organization for teenagers whose lives have been affected by someone else's drinking.
- Al-Anon is a self-help organization for non-alcoholic adults whose lives have been affected by someone else's drinking.
- Alcoholics Anonymous (AA) is a treatment program that offers health services to all who need them regardless of age or income.
- The National Council on Alcoholism provides information, referrals, and counseling to problem drinkers and their families.

Even if no one close to you has a problem with alcohol, work to maintain a positive self-image and promote drug-free living. Join an anti-drug club or start one — there are many nationwide. You may choose to become involved with *Students Against Driving Drunk* (S.A.D.D.) or initiate a *Safe Ride Home* program at your school and sell cards that people who have been drinking can use for free taxi rides.

***DON'T DRINK  
& DRIVE***



Help in the fight to keep your school drug-free. Organize a poster competition at your school in which students address the

need for education and responsibility in the consumption of alcohol. Develop positive peer pressure and teach the harmful effects of alcohol abuse. Remember that there is strength in numbers and that encouraging alcohol-free activities can prevent problems from ever starting.

## CONCLUSION

While the damaging effects of alcohol consumption use remain obvious, it has also become clear that even non-users of these substances can experience problems. More and more people are being affected every day. Because any use by young people is considered harmful and can have a dramatic effect on life and preparation for the future, challenge yourself and others to pledge not to use these dangerous substances.

## SUBSTANCE ABUSE — INTERVENTION AND PREVENTION

### LESSON 1: MAKING CRITICAL DECISIONS ABOUT SUBSTANCES

#### INTRODUCTION

Obviously, all drug use is not bad. Drugs taken as prescribed by doctors or as indicated on over-the-counter drug packaging can help prevent and cure illnesses and relieve symptoms of illnesses. When taken under these circumstances and for these reasons, drugs are a useful tool in keeping people healthy. However, drugs should only be a small part of an individual's efforts to maintain wellness, since the best way to stay healthy is to maintain a healthy lifestyle. When people are healthy and feeling well both mentally and physically, they do not require drugs. So why do people misuse and abuse drugs when they do not need them?

Reasons for misusing and abusing drugs all have one thing in common — people depend on drugs to change the way they feel, instead of learning to change themselves or their behaviors to solve their problems or face new challenges. You do not need drugs to have a good time; there are many other longer lasting ways to feel good. You do not need drugs to relieve uncomfortable feelings; many other young people struggle with troubles and challenges much like your own. Even adults are often concerned with the same things you are. Many people, young and old, work to change the things that they do not like in their lives and learn to live with those aspects of their lives that they cannot change — all free of drugs. In fact, people who abuse drugs to avoid their problems are not able to solve them.

#### HOW USE DEVELOPS

Students are usually first tempted to smoke cigarettes and marijuana and drink alcohol at parties and other social occasions because of peer pressure and curiosity. From there, drug abuse may then progress in stages. These stages are:

1. Experimental use
2. Occasional use
3. Regular use
4. Multiple drug use
5. Total dependency

This progression of stages is not inevitable; it can be stopped at any stage although stopping becomes more difficult in later stages. The best way to prevent a problem with drugs is to simply not abuse them in the first place.



#### *Experimental Use*

Those who experiment with drugs may be more curious about a drug's effects than the drug's dangers. In the case of certain drugs, however, the dangers of addiction,

permanent psychological damage, or physical harm takes only one unlucky experiment. Drugs have different effects on different individuals who have no way of knowing what that effect may be. For some, trying a drug once can result in immediate addiction, serious injury to themselves or others, and even death. Remember, those who are now dependent started with experimentation, and they probably never thought that trying a drug once or twice would become an addiction. The many lives ruined by drugs prove that this can indeed happen.



### *Multiple Drug Use*

In many cases, once people try one drug and get comfortable taking it, they are more likely to feel comfortable trying other types of drugs. For example, after many young people give in to pressures to try marijuana, and if they continue to use it regularly, it is likely they will try other drugs as well. Unfortunately, as covered in the previous lesson, each drug produces different effects, and while users of one drug may know what to expect when they take it, another drug may be much more dangerous and affect them in a very different way.

### *Total Dependency*

Dependent users rely on drugs physically as well as psychologically and will go to great lengths to get them. Without drugs, they experience severe physical and mental distress. Dependent users all started with experimental drug use. In many cases, as users grow more dependent on drugs, they crave new sensations and may try more than one drug at a time or different ways of taking a drug. Such habits multiply the risks of drug use. For example, people who start injecting drugs risk contracting diseases like AIDS through shared needles.

### **DID YOU KNOW?**

The chances that a first-time user of cocaine will become addicted are 1 in 6; the chances that a first-time user of crack will become addicted are 1 in 3; and 1 out of 10 drinkers becomes an alcoholic.

### *Occasional Use*

For occasional drug users, drugs become a way of having a good time with friends in social situations. Using drugs while alone is still relatively uncommon. Drug use may become the major social activity of the group, so it is very easy for occasional use to turn into a regular habit.

### *Regular Use*

Regular users take drugs to maintain a drugged feeling. Though they may deny it, these users are psychologically dependent on drugs. Drug use has become a regular part of their lifestyle, and although they continue to carry out their daily activities at home, school, or work, they are usually barely making it.

## WHO'S AT RISK?

Anyone has the potential to become dependent on substances, but some people seem to be more susceptible than others. Certain times in life may make someone more likely to try drugs for the first time or to use drugs to escape problems. People who are under a great amount of stress are more likely to use drugs; adolescence is a time of great stress and drugs are often readily available to young people. Young people who have family problems are more likely to use drugs, and those with low self-esteem run the risk of continuing to use drugs after “just trying” them to deal with peer pressure or bad feelings.

The best prevention is simply not to use drugs except as directed for medical reasons and not to drink alcohol until you are of legal age and then only moderately. Children of alcoholics should consider not drinking at all, even when reaching legal age, because their risk of alcoholism is much greater than that of children of non-alcoholics.

Remember, no matter how rough things may get, there are always alternatives to drug abuse, whether it is changing an uncomfortable situation, participating in a healthy activity you enjoy, or seeking counseling for problems you feel you cannot handle alone. While it may seem that drug abuse is very prevalent in the United States, it does not mean that it is normal.

### *What Is Normal, Anyway?*

While you may wonder what the term “normal” has to do with drugs, deciding what kind of behavior is “normal” in your life has a lot to do with whether or not you abuse drugs. Many young people are very concerned with being normal, which can mean different things in different situations to different peo-

ple. Behavior that is normal for one person may not be normal for another. What is normal in one group may be considered strange in another.

When you worry about how your clothes and hair look, if you are saying the right things, or if people will laugh at you for certain things, you are concerned with whether other people think you are normal. In fact, worrying about being normal *is* very normal. Young people, in particular, worry because they are experiencing so many changes in their lives. This acute awareness of “fitting in” usually decreases as you become an adult and gain a better sense of who you are. Your teenage years are a time for learning what is normal for you. It is not an easy process, so give some thought to the type of behavior you believe is normal.

Do not make the mistake of labeling your emotions as good or bad. You may not enjoy feeling angry, sad, or bored, but these are emotions that everyone has. They teach you about yourself. When you abuse drugs to escape these feelings, you are cheating yourself. Uncomfortable feelings are often messages that you need to change something in your life; look at them as feedback on how you think, act, and view your environment. They are for you to analyze and work with. They are normal.

What you consider normal is generally considered normal by your group of friends. You became friends because you have things in common. But what do you do if your friends want you to try drugs? Is it normal behavior to go along with the group? If what is standard for the group is not for you, then it is better for you not to be what the group considers normal.



If you could run faster than all the others in your group, you would not want to slow down just to be normal. The same goes for drugs. If you know that drugs hurt you, why use them to be considered normal? Why slow down with the crowd when you know you can win the race?

### LEGAL RISKS OF ILLEGAL DRUG USE



Before deciding to drink alcohol or abuse drugs, remember that abuse of legal drugs, taking illegal drugs, underage drinking, and driving while intoxicated are all against the law. By endangering their lives and the lives of others, users become a societal problem, often requiring legal punishment. Drug laws vary from state to state, but the general trend throughout the United States is toward stiffer penalties for those convicted of drug possession, drug selling, and alcohol-related car accidents. People convicted of these crimes must pay higher fines and must often spend time in jail. If you think trying drugs

might be a fun way to spend some time, think about how much fun you would have spending time in a prison.

### TURNING THE PRESSURE OFF

As a teenager, you have many new pressures in your life, as well as many new challenges and experiences. Along with these new opportunities come added responsibilities. While adjusting to these changes that are a part of becoming an adult, you are constantly making decisions. Sometimes you make good decisions and other times you may make mistakes. Making mistakes is normal in a good way because they are part of the learning process. Of course, nobody likes to make mistakes, so try to analyze each situation beforehand to minimize them.

When it comes to drugs, however, it is extremely important to make the right decision before you make a mistake; making just one wrong choice may be too late. Having to juggle pressures from your family, school, activities, job, and friends may overwhelm you at times. The many new situations and emotions you experience can sometimes seem unbearable with no end in sight. Unfortunately, drugs and people who use them and are willing to share them are readily available with what seems like a quick solution to all your problems.

Pressures from society, your family, friends, and yourself may sometimes make it difficult for you to say no to drugs. Our culture often encourages quick solutions to problems; many people would like to believe that taking a pill could cure all types of problems, but there is no magic pill to make it all better. Pills and other drugs only produce chemical reactions in your mind and body, which in turn create artificial feelings and unhealthy side effects.

Advertising, movies, and television often shows glamorize drug and alcohol abuse. It may appear that all the beautiful, fun people are drinking at a bar or taking a refreshing break with the “crisp, clean” smoke of a cigarette. These types of false messages reinforce the idea of drug abuse as a normal and desirable part of life. You may see your parents drink at parties; you may know students who use drugs; and you may be curious about drugs’ effects or tempted to use them to relieve uncomfortable emotions. Though all these situations may make drug abuse attractive to you, the reality of drugs’ effects are far from glamorous. The pleasure drugs give is short-lived and unreal. They never solve problems; only you can do that, and you cannot function if drugs are a problem in your life.

What you need is a plan of action to cope with all the pressures to abuse drugs. Once you decide that you do not want drugs to be a part of your life, you must develop strategies to resist these pressures as well as healthy alternatives to drugs.

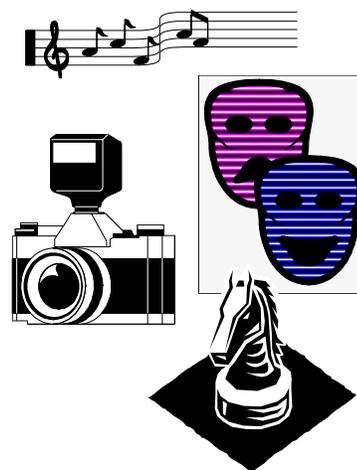
### *HANDLING INTERNAL PRESSURES*

1. *Accept and analyze your emotions.* If you are feeling something unpleasant, take time to consider the cause of your emotions instead of trying to avoid feeling bad. If you do not address the cause, the uncomfortable feelings will return to bother you. Also, remember that certain amounts of anger, sadness, boredom, and frustration are normal human responses to life that must be accepted.
2. *Seek out help when you feel overwhelmed.* Members of your family, teachers, counselors, and friends can help you. There are also many places that offer help for specific problems, like divorced parents, shyness, alcoholism, or lack of reading skills.

You can ask a counselor or instructor at school about them or look for yourself in the phone book. If you are willing to make the effort, there are people willing to help you. Seek them out.



3. *Find alternatives to drug use.* If your routine is a big yawn, take a look around and see if there is an activity that looks interesting to you. Photography, auto mechanics, painting, chess, drama, singing, playing an instrument, and part-time employment are among the many activities you could do that would add new challenges to an unexciting routine.



Of even greater importance, these activities pay you back with a real sense of accomplishment and heightened self-esteem as you get better and better at

them. Drugs cannot give you these benefits; they can only temporarily produce a false feeling of well-being. In the long run, drugs always take far more than they give and leave the user with nothing but problems.

4. *Release excess energy and learn how to relax.* If you cannot sit still in your seat during class, maybe you are not exercising your body enough. Physical activities such as running, walking, biking, tennis, basketball, weight training, martial arts, skiing, and dance, among others, keep your body in shape while relaxing and focusing your mind during mental activities.



If you have problems relaxing, try the relaxation methods in the chapter on stress, such as meditation, deep breathing, and visualization techniques.

5. *Practice patience.* If there is a situation that makes you feel bad, you cannot think of a way to change it, and nothing you do seems to work, what can you do? *Wait!* You may not like that answer, since waiting is difficult, especially for young people. But there will be times in life when the situation is out of your control. This fact is understandably hard for young

people to accept. However, change is certain and inevitable. If you wait and stay alert, new solutions and opportunities will become available to you in time. To cope with the stress of a difficult situation until things do change, follow the tips in the chapter on stress. People on drugs never learn this lesson of waiting and miss opportunities to change their lives for the better.

### RESISTING EXTERNAL PRESSURES



1. *Learn how to refuse drugs effectively.* Standing up to peers when they want you to do something that you do not wish to do can be very difficult. When you go against the crowd, you risk rejection — and that is scary. However, every time you make a decision to do what is best for you and those you care about, you become a stronger person. You also gain the respect of those people who are your true friends. Your strength and your decisions may even give others the courage to do what is best for them as well. In today's school environment, saying no may not be easy, but it is definitely worth the effort.
2. *Prepare yourself for situations where you may be offered drugs.* Visualize different

circumstances and different behaviors you can use to refuse offers of drugs. Have answers ready, such as:

- No, thanks, I'd rather do something else.
- No, I already feel fine.
- No, thanks, I already have enough problems.
- No, I'm running in the meet tomorrow (interviewing for a job, taking an important test, acting in a play, etc.).
- No, thanks, I'll pass.
- No, I don't like the way it smells, tastes, makes me feel, etc.
- No, I'm not feeling too well and I don't want to get worse.
- *No!*

If you do not feel comfortable saying no in a situation, find a way to remove yourself from the scene. Suddenly remembering an appointment or some other excuse can get you away from the situation and give you time to think of another way of handling it next time. The important thing is not to do the drugs.

3. *Analyze media and advertising.* Is the image of drugs projected by advertising accurate? Who gains by making products appear glamorous and sophisticated? People who sell products want you to buy them and will use psychological techniques in advertising to create a demand for their goods. Companies that sell beer, cigarettes, and non-drug related products, such as cars, have one main goal — they want your money.

Your goal is to do what is best for you. Some products that advertising tries to sell you are opposed to that goal. Your defense against advertisements for products that are useless or harmful is the power to read between the lines of the

psychological game. Think about the message an ad is giving and decide for yourself whether it is accurate.

## CONCLUSION

Now that you have finished this lesson, you have a better understanding of drugs, their effects, their dangers, and the correct role they should play in a person's life. You have also learned the importance of remaining drug-free and ways to avoid the pressures to abuse drugs. Use your knowledge to make your life and the lives of those around you better. You do have the power to control much of the way your life turns out. Set an example — your actions do make a difference in the world.

## LESSON 2: SUBSTANCE ABUSE INTERVENTION

### INTRODUCTION

It is important for you to learn about the effects of drug use, the reasons why drugs are harmful, and ways to resist pressures to try drugs. However, imbedded within the principles of good citizenship, JROTC cadets take this one step further. They also learn about the dangers posed by drugs in order to help other students avoid them, thus persuading those using drugs to seek help. Involvement in intervention programs can only help to dissolve the drug problem.

### TELL-TALE SIGNS OF DRUG ABUSE

As a cadet and leader in the JROTC program, you serve as a role model for other cadets. You send a positive message to your followers about how to successfully function without drugs. You can also help by recognizing signs of problems in other cadets. The following list of symptoms and signs of drug use will help you to determine if someone you know may be using drugs or has a serious drug problem.

- Changes in attendance, discipline, interests, neatness, and attention
- Loss of interest in sports, extracurricular activities, or hobbies
- Failing memory
- Unusual degree of activity, like excitement, boundless energy, excessive laughter, and excessive talkativeness
- Unusual inactivity, like moodiness, depression, drowsiness
- Poor physical coordination
- Slurred speech
- Deterioration of physical appearance and lack of concern for health habits and dress
- Loss of appetite and rapid weight loss
- Sudden increase in appetite
- Unpredictable outbreaks of temper and arguing
- Nervousness and irritability
- Reduced motivation, self-discipline, and self-esteem
- Wearing sunglasses at inappropriate times to conceal the eyes which may be red or have constricted or dilated pupils
- Constantly wearing long-sleeved shirts or blouses (to hide needle marks)
- Borrowing frequently from others or stealing money (required to purchase drugs)
- Chronic dishonesty, such as lying, stealing, or cheating
- Appearing frequently in out-of-the way areas, such as closets, storage areas, or rest rooms
- Guilty behavior and fear of discovery
- Association with known or possible drug sellers or abusers
- Not giving straight answers when questioned about activities
- Appearance of intoxication but no smell of alcohol, indicating possible use of barbiturates or marijuana
- Use of drug-related vocabulary
- Possession of pipes, rolling papers, small decongestant bottles, and lighters
- Possession of drugs or evidence of drugs, such as peculiar plants, butts, seeds or leaves in ashtrays, or clothing pockets
- Odor of drugs and the smell of incense or other “cover-up” scents

Remember these are just guidelines of which you should be aware. Many of these behaviors or signs can have causes other than drug use. However, if you notice some of these signs in someone, you can be fairly certain that there is some kind of problem; whether related to drugs or not, the person needs help. You can be a part of that help.

## WHO YOU GONNA CALL? WHERE DO YOU FIND HELP?

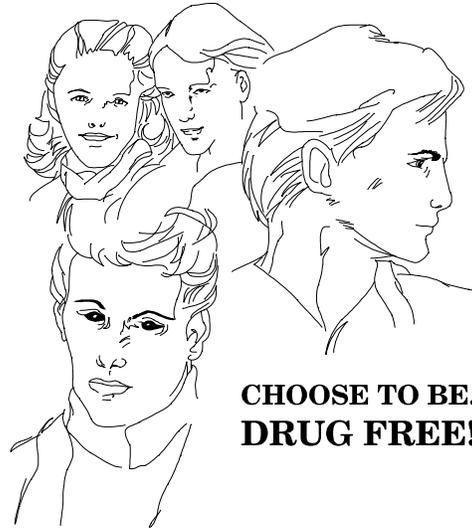
If a friend you know is having problems and is considering abusing drugs to relieve the pain, you can be of help just by being there to listen and by affirming your personal decision that drugs are not a good way to deal with problems. In some cases, this may be all that is needed — a caring and strong presence can go a long way as can an informed discussion about what a particular drug can do to the mind and body. There may be other situations, though, which require specific and professional help that you are not prepared to give.

When you realize that someone you know may have a drug problem, there are some choices of action you need to make. Among your choices are:

1. *Convince the person to seek help.* Be prepared with the names of people and agencies that can provide help.
2. *Tell a responsible adult, such as an instructor or counselor, that you are concerned about the person.* You may be reluctant to do this because it feels like telling on someone. However, especially in cases where you know the person is using life-threatening drugs or participating in dangerous situations, you are really doing this person a favor. Your action may save a life.
3. *If you know of someone selling drugs, report the person to an appropriate authority.* People who sell drugs have passed the point of having a personal problem. Drug dealers are hurting others.

Find out what types of help are available at your school and in your community for people with problems. Know the proper procedure for reporting drug-related incidents, and above all,

show the cadets whom you lead that you care about their well-being and are willing to help. Your example and your support can have a positive impact on those around you.



**CHOOSE TO BE...  
DRUG FREE!**

## CONCLUSION

Become involved as an individual. Talk to your friends and neighbors about drugs. Ask them to join you in your community's attack on drugs. Reach out a helping hand to your community — join the fight against drugs and become a part of the solution. Your assistance could save a life.

## LESSON 3: SUBSTANCE ABUSE PREVENTION

### INTRODUCTION

Involvement in prevention programs can only help to dissolve the drug problem. The following is a brief history of substance abuse prevention. Later in this lesson, telephone numbers for self-help groups and prevention organizations are provided.

### PREVENTION HISTORY

Historically, various organizations, communities, and governmental agencies founded drug abuse prevention programs based on the theory that people used drugs because they were ignorant of the consequences of such use. According to this theory, failure to recognize any negative effects of drugs resulted in neutral or even positive attitudes toward experimenting with drugs.

During the 1960s, drug education programs focused on providing information. Administrators of those programs often called them “fear arousal messages,” because they dealt with health and social consequences of drug use. However, these programs were somewhat ineffective because youths said that the messages themselves lacked credibility.

By the 1970s, social scientists began to address more personal factors that influenced drug abuse behavior among children and adolescents. Studies showed that a close association exists between drug abuse and a person’s attitudes, beliefs, and values, as well as other personality factors such as feelings of self-esteem, self-reliance, and alienation.

One prevention approach that grew from this research was affective education. Rather than focusing on drug abuse behaviors, affective education focused on the factors

associated with use. This approach attempted to eliminate the reasons for using drugs by creating a school climate that was supportive of students’ social and emotional needs. These programs often focused on training the students in effective decision-making skills. Students in these programs worked to clarify their values, analyze behavior consequences, and identify alternative behaviors.



Some of the other leading prevention approaches in the 1970s focused on alternative activities to drug use. These programs involved youths in community projects to reduce alienation, while others provided alternative opportunities for recreation, socialization, and informal education.

### PREVENTION TODAY

Today, many schools have drug prevention programs. Sometimes these programs directly involve the students. For example, high school students might perform as “peer” teachers for 7th graders. Some studies have shown that prevention programs led by peers are more effective than programs led by adults. The health programs led by peers were more successful at preventing nonsmokers

from smoking. Through role-playing, students acted out situations requiring resistance to peer pressure. Students also made social commitments not to smoke or use drugs.



For most youths, substance abuse appears to be the result, in large part, of social influences. Thus, teaching youths to resist these influences is one approach to the prevention of use. However, not all youths use drugs for the same reason or respond to the same prevention approach. Thus, it may not be effective to focus on any single prevention approach, and it is important to explore multiple strategies.

### *CHANGING THE SOCIAL ENVIRONMENT*

Successful drug programs change the social environment to reduce the risks of early drug use. These programs help to provide adolescents with the personal attributes and behavioral skills they need to choose non-drug alternatives, hopefully reducing their tendency to use stronger drugs in the future.

The social environment may provide the necessary conditions for drug use through

models and social supports, and through access to drugs. However, not all adolescents in high-risk environments choose to experiment or use drugs regularly. Intrapersonal and behavioral factors may be critical in determining the response to the environment through values and skills available to the adolescent to choose nondrug alternatives that meet their needs. These findings imply concentrating the prevention efforts on both of these factors, rather than on a single factor. They also imply that adolescent drug use is functional; thus, prevention efforts should focus on the functions served by drugs as well as on the more immediate predictors of drug use.

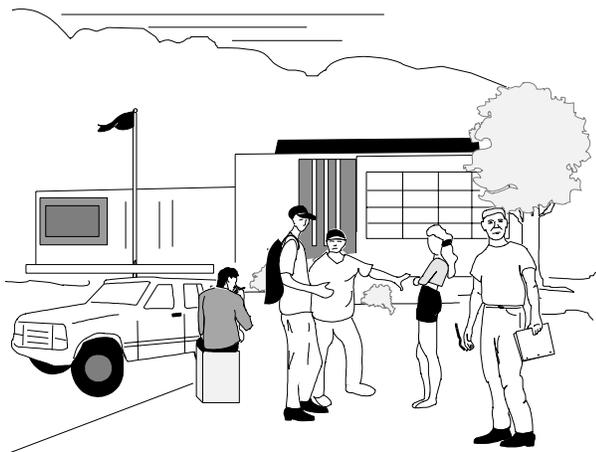


Some models suggest that prevention efforts should focus on this functionality and provide alternative behaviors for drug use rather than simply trying to suppress the underlying need or reason for use. These models often reward adolescents for choosing alternatives to drug use and suggest that such rewards should come from both peers and parents.

### **DRUG ABUSE**

Drug abuse is using natural and/or synthetic chemical substances for non-medical reasons to affect the body and its processes. For example, people sometimes

use amphetamines to stay awake when tired. If abused, drugs can also affect the mind and nervous system. For example, people sometimes use marijuana to change moods and to “get high.”



Used properly to treat a medical problem, drugs can correct imbalances in body chemistry, protect against disease, and relieve tension, fatigue, and pain. However, when people abuse drugs they can cause:

1. Health problems. Every year, hospitals treat thousands of people for drug-related accidents and mental and physical illness. Drug users can harm their health by losing resistance to disease. Plus, intravenous drug users may be exposed to AIDS and other serious diseases. More than 25,000 die every year from these accidents.
2. An addiction. When you need more and more of a drug to get the same effect, you risk an overdose, which can kill. The continued use of many drugs can lead to a physical and/or psychological dependence.
3. Legal problems. Stealing is often the only way to support an expensive habit. Law enforcement officials arrest about

2 million people each year for alcohol and drug related offenses. Possession of illegal drugs is punishable by heavy fines and prison sentences. A police record can follow you through life and eliminate certain career choices.

4. Financial hardships. From \$10 a week for cigarettes to \$100 a day for heroin, drug abuse can be an expensive habit.
5. Social difficulties. Instead of trying to work out their problems with other people, drug abusers often take more drugs as a “solution.”
6. Violence. Certain drugs can trigger violence against others.
7. Loss of friends. Once hooked, drugs come first — ahead of friendships or anything else.

The facts show that drug abuse is on the rise. Emergency rooms treated ten thousand users of crack cocaine in 1994. In 1985 the cocaine death rate was triple that of 1981. Crack is a \$30 billion a year business. Drug-related law enforcement agencies spend \$6.5 billion a year fighting crack.

Drug abuse has risen to epidemic proportions in most communities. It touches everyone — regardless of age, race, or economic background. Communities should use information on drugs to help its citizens better understand this serious problem affecting our homes, schools, and neighborhoods.

## DRUG ABUSE PREVENTION

There are many ways in which you can become involved in drug abuse prevention. You might be able to volunteer at drug treatment and rehabilitation centers. Look in the phone book under “drug abuse” for infor-

mation and prevention programs. You may be able to find several local sources for preventive information. There are also toll-free numbers that provide information on drug abuse and prevention.

Many major hospitals have chemical dependency hospitals affiliated with them. These hospitals may offer professional treatment for alcoholism and drug dependency. Some may offer services such as seminars on drug recovery, depression, or anxiety and other individualized programs.

Help and/or information is available from many private and public agencies, facilities, and people. Drug treatment centers and clinics specialize in treating people with drug problems. Hospitals treat on an in- or out-patient basis. Mental health centers can treat people with drug problems by dealing with underlying problems. Public health agencies and social service agencies can give practical advice, make referrals, etc. Halfway houses provide residential treatment for those with drug problems.

If you need help with a cocaine problem, call the help line: **1-800-COCAINE**, or volunteer to help others with their drug problems and help to promote prevention programs.

The Office for Substance Abuse Prevention (OSAP) promotes and distributes prevention materials throughout the country. OSAP also supports the National Clearinghouse for Alcohol and Drug Information (NCADI) and the Regional Alcohol and Drug Awareness Resource (RADAR) Network. To learn more information on alcohol and other drugs, write or call: National Clearinghouse for Alcohol and Drug Information: Information Services; P.O. Box 2345; Rockville, MD 20847-2345; **(301) 468-2600**.

## ALCOHOL ABUSE

With over 157 million drivers and 105 million drinkers in the United States (in 1990), it is no wonder that people who drink and drive have become the major safety problem on our highways. Approximately 50,000 people die each year on U.S. highways, and alcohol is a factor in at least half of those deaths.

Alcohol can cause a feeling of relaxation and often an unreal sense of cheerfulness. Because of its widespread use, many people do not consider alcohol to be a drug or even dangerous. And, it can be very dangerous. The following list represents just a few of the serious side effects of alcohol. It can:

- Increase loss of body heat, giving a false feeling of warmth while actually decreasing the body's temperature.
- Affect a person mentally and physically, even with one drink.
- Contribute to loss of coordination and slurring of speech.
- Produce changes in personality and mental functions.
- Loosen inhibitions, causing intensification of feelings (such as anger and sadness).
- Impair clear thinking and judgment.

People who mix alcohol with other drugs multiply the effects of the drugs (known as the synergistic effect). Many drugs interact with each other in harmful ways — consequently, mixing alcohol with other depressants may lead to accidental deaths.

## ALCOHOL ABUSE PREVENTION

Alcoholics Anonymous (AA) is a worldwide group of men and women who help each other maintain sobriety and who offer to share their recovery experiences freely with others who may have a drinking problem. The AA program consists basically of “Twelve Steps” designed for personal recovery from alcoholism. The organization functions through almost 73,000 local groups in 114 countries. Several hundred thousand alcoholics have achieved sobriety in AA, but members recognize that their program is not always effective and that some may require professional counseling or treatment.

Look for Alcoholics Anonymous in any telephone directory. In most urban areas, a central AA office can answer your questions or put you in touch with AA members. If AA is not in your local directory, write the General Service Office, P.O. Box 459, Grand Central Station; New York, NY 10163.

Al-Anon is a worldwide organization that offers help to families and friends of alcoholics. Members receive support through a mutual exchange of experiences about how an alcoholic has affected their lives. Alateen is a fellowship of young Al-Anon members, usually teenagers, with someone else's drinking problems affecting their lives. Young people come together to share experiences, strengths, and hopes with each other as they discuss their difficulties. They can also encourage one another to learn effective ways to cope with their problems.

To contact the nearest Al-Anon or Alateen Group, call the local Al-Anon Information Service (Intergroup) in metropolitan areas, or write to Al-Anon Family Group Headquarters; 1600 Corporate Landing Pkwy., Virginia Beach, VA 23454.

There are many other places that people can get help for problems caused by alcohol. They can talk with family, friends, a school counselor, or a doctor. Look in the yellow pages under “alcohol” or “alcoholism.” Use referral services and get information provided by the local affiliate of the National Council on Alcoholism (**1-800-NCA-CALL**). Remember, it is important to seek help and support for people with drinking problems.

At least 22 states have established formal programs for citizen-reporting of drunk drivers. Oregon has a toll-free hotline and a governor who, at one time, displayed a red star on his car for every drunk driver he reported. During 1982 and 1983 — the first two years of Oregon's reporting program — tragic fatalities were the lowest in 20 years. Most will agree that everybody has to work together. The government cannot do it alone. In Nebraska, fatalities dropped 26 percent in the first year of its drunk driver-reporting program.

***DON'T DRINK  
& DRIVE***



Call your police department to see if such a program exists in your area. If not, push for one. There are many other organizations working to get drunks off the roads. For specific information on how you can help, send a stamped, self-addressed envelope to: Mothers Against Drunk Drivers (MADD) National Office; 511 E. John Carpenter Frwy., Suite 700; Irving, TX 75062-8187 or call **1-800-438-6233**.

**DID YOU KNOW?**

Drinking is the third leading cause of death in the United States — right behind heart disease and cancer.

“Know When to Say When,” which has been in effect since 1983, is a nationwide consumer education campaign developed by Anheuser-Busch that encourages consumers to be responsible when they drink. It aims at normally responsible, law-abiding citizens who only need reminders of their legal and moral obligations to themselves and others. The purpose of the campaign is to help create a climate that strongly discourages “situational abuse.” The campaign involves a series of television commercials, a movie, billboards, and newspaper advertisements which remind consumers not to overindulge.

“The Buddy System” is an education campaign aimed at college students and other young adults. It includes a short movie, brochures explaining the program, and posters. The program makes a strong point that friends should be responsible for each other and should help one another avoid drunk driving situations.

Other programs developed to avoid drunk driving situations include free or reduced-price taxi rides home to customers who are unable to drive safely, and designated driver programs. A group designates one person to refrain from drinking so that a safe ride home is available to the other members of the group.

Students Against Driving Drunk (SADD) is a student-run program that works to counteract peer pressure to drink and drive. The founder of SADD, Bob Anastas, suggests that teenagers call their parents if they or their driving friends have been drinking. Anastas

has found that such an agreement between parents and teenagers works. Since the founding of SADD in 1981, more than three million students in 6500 high schools in all 50 states have become involved in SADD chapters. The efforts of groups like SADD are beginning to have an impact.

In 1980, traffic accidents accounted for killing 12,214 Americans ages 16 to 21; in 1983, 9054. In 1980, 49% of drivers ages 16 to 21 killed in traffic accidents were legally intoxicated; in 1983, 47%. For information about the parent-teenager agreement, or about starting a SADD chapter at your school, send a stamped, self-addressed envelope to SADD; P.O. Box 800; Marlborough, MS 01752 or call **1-800-886-2972**.

Each year in the United States, drinking and driving result in costs totaling more than a billion dollars for property damage, insurance, and medical expenses. Drinking and driving account for over 500,000 people being injured and more than 1 million people arrested.

**GENERAL INFORMATION**

There are better, safer, more rewarding experiences in life than using drugs. They involve doing something that you find exciting, satisfying, meaningful, and challenging. Some alternatives include sports, dancing, playing music, theater, volunteer work, tutoring, writing, reading, playing games, photography, or crafts. You can find out about other alternatives by asking organizations in your community about programs they offer. Check with schools, community colleges, adult education programs, YMCA, YWCA, Boys’ or Girls’ Clubs, libraries, etc.

Drug abuse prevention programs have evolved from the need for action and the need to reach the target school-aged population.

The result is a heavy reliance on school systems, use of academic time, and involvement of educators in implementation. Everyone has the opportunity to become involved in community efforts to make citizens aware of the drug problem and how to prevent drug abuse.

Concerning the fight against drunk drivers, there are many things that people can do to help. Your knowledge of the following tips can possibly save a life when you are in a position to influence family members, friends, or other adults who are planning and/or attending a social function that includes alcohol.

*As responsible hosts, they should:*

- Recognize that every social occasion does not have to include alcoholic beverages.
- Place limits on the amount available if alcohol is served. Estimate how much alcohol to have on hand based on the number of guests and the length of the party. As a guideline, plan on one drink per guest per hour; then, purchase only that amount.
- Provide other activities when serving alcoholic beverages. Drinking should not be the main purpose of any activity.
- Create a climate that respects individual choice by providing attractive non-alcoholic drinks.
- Be conscious of the drinking age and remember that serving alcohol to a minor is illegal.
- Serve snacks so that guests do not drink on an empty stomach and to slow down alcohol absorption.
- Create a climate that discourages overindulgence but assume responsibility for guests who overindulge. See that they get home safely by providing or arranging transportation or invite them to stay later or overnight.

- Keep a list of telephone numbers of emergency health care, police, and taxi services in case you have a problem.

*As responsible guests, they should:*

- Regard alcohol as the highly toxic substance it is; understand its effects on the body, brain, and thought processes.
- Set a limit on the consumption of alcohol that is well within their personal limits, remembering that this will vary from time to time.
- Eat while they drink — such as low salt snacks or a meal.
- If they have exceeded their limit, ask for a ride home with someone who has not been drinking.

*As friends, they should:*

- Discourage anyone who appears to be under the influence of alcohol from driving.
- Call a cab for anyone who appears to be under the influence of alcohol.
- Remember: A brief uncomfortable confrontation may save the life of a friend and others.

*As concerned citizens, they should:*

- Talk about the dangers of drinking and driving to those who are overindulging. Ensure they understand the dangers of drinking and driving, the effects of alcohol on driving performance, and the consequences of being arrested and convicted of driving under the influence.
- Be a positive role model. Their attitudes and behavior regarding drinking and driving will influence others, especially minors.

- Support education and prevention activities in their local schools.
- Practice other safety measures such as using seat belts and child restraints for protection from drunk drivers.
- Join an organization on the local, state, or national level that is working to educate people about the dangers of drinking and driving.
- Support strong laws and enforcement of those laws. Let government know your feelings.

The following is a list of numbers to call if you need more information on what you can do to help.

Hazeldon Educational Materials

***1-800-328-9000***

Alcohol Hotline

***1-800-ALCOHOL***

Youth Power (formerly Just Say No)

***1-800-258-2766***

Dare America (CA)

***1-800-223-3273***

Center for Substance Abuse Treatment

National Hotline

***1-800-662-HELP***

## CONCLUSION

Become involved as an individual. Talk to your friends and neighbors about drugs. Ask them to join you in your community's attack on drugs. Reach out a helping hand to your community — join the fight against drugs and become a part of the solution. If you feel you need help to be sober and drug-free, try to be brave enough to call the telephone numbers provided in this chapter. If you know someone who needs help, be a true friend and pass these phone numbers along. Your assistance could save a life.

## GLOSSARY

### A

**abrasion.** A part of the skin that has been lightly torn or scraped.

**abuse.** Improper or excessive use or treatment.

**acids.** Chemical compounds with a sour taste that react with bases to form salt, have a pH (percentage of hydrogen) value less than 7, react with metals to form hydrogen gas, and have the ability to eat away or dissolve metals and other materials. (Compare to **bases**.)

**addiction.** Physically or psychologically dependent on a substance, habit, or behavior that could lead to health, social, or economic problems.

**aerobic.** Allowing sufficient amounts of oxygen to be delivered to the muscles.

**alcohol.** A beverage containing ethanol or ethyl alcohol which causes intoxication.

**allergic reaction.** A reaction, often marked by sneezing, breathing difficulties, itching, rash, or swelling, that some people have when they come in contact with certain substances that do not have such an extreme effect on the average person.

**amenorrhea.** An abnormal absence or suppression of the menstrual period.

**amino acid.** The basic unit of proteins, which is produced by living cells or obtained as an essential component of a diet.

**ampule.** A small, sealed glass container that holds one dose of a solution, usually a medicine, to be administered by injection.

**amputation.** The removal of an external part of the body, most often a limb or part of it, when it has been severely crushed or following the death of an extremity due to impaired blood circulation.

**anaerobic.** Working in the absence of adequate amounts of oxygen being delivered to the muscles.

**anorexia nervosa.** An aversion to food syndrome; an eating disorder characterized by an extreme (prolonged) loss of appetite.

**antivenin.** An antitoxin used to counteract venom.

**anxiety.** Concern or interest about an upcoming event that causes fear, nervousness, and unease; it is considered an emotional disorder when these feelings occur without a specific reason.

**arteries.** Blood vessels that carry blood away from the heart to all parts of the body.

**Automatic External Defibrillators (AEDs).** A device used to treat a patient with cardiac arrest whose heart is beating irregularly (fibrillating). An AED is used to administer an external electric shock through the chest wall to the heart with the use of conductive adhesive pads. Built-in computers analyze the patient's heart rhythm, and interpret the rhythms that require defibrillation shocks. Audible and/or visual prompts guide the user through the process. Most AEDs require an operator to initiate the delivery of the shock in some way, such as pushing a button.

**avulsion.** The tearing away of a body part accidentally or surgically.

**B**

**basal metabolic rate (BMR).** The number of calories burned at complete rest; measurement of it indicates an individual's general metabolism or state of health.

**bases.** Chemical compounds with a slippery or soapy feel that react with acids to form salt, have a pH (percentage of hydrogen) value above 7, and are used as cleaning materials. (Compare to **acids**.)

**bivouac.** A temporary camp or shelter.

**bronchitis.** A respiratory disorder with irritation of the bronchi (the airways connecting the windpipe and lungs), characterized by mucus and harsh coughing.

**bulimia.** A disease (or eating disorder) with symptoms of a never-satisfied hunger.

**C**

**calamine.** A pink powder consisting of zinc oxide and some ferric oxide used in lotions and ointments.

**calisthenics.** Light gymnastic exercise designed to promote good health by developing strength and grace.

**calorie.** The amount of energy it takes to raise the temperature of one kilogram of water one degree Celsius.

**carbohydrate.** One of various neutral organic compounds composed of carbon, hydrogen, and oxygen (including starches and sugars) produced by green plants and used to provide energy necessary for growth and other functions.

**carbon monoxide.** A gas formed during the burning of tobacco that restricts the oxygen-carrying capacity of blood.

**cardiac arrest.** The sudden stoppage of the heart.

**cardiopulmonary resuscitation (CPR).** An emergency method to keep blood and oxygen flowing through a person whose heart and breathing have stopped.

**cardiorespiratory.** Of or relating to the heart and the respiratory system.

**catastrophe.** A great and sudden misfortune.

**caustic.** Capable of destroying or eating away by chemical action; corrosive.

**chlorine.** A gaseous greenish-yellow element used as a bleach and disinfectant in water purification.

**cholesterol.** A fatty material that is present in all body tissues; needed for the health of cells but may cause heart and artery disease in large quantities.

**clammy.** Damp, soft, sticky, and usually cool.

**closed fracture.** A fracture in which the broken bone does not push through the skin's surface.

**complex carbohydrate.** A carbohydrate that is formed by the body after the conversion of extra glucose; it supplies the body with long-term energy.

**compress.** A folded cloth or pad applied so as to press upon a body part to stop bleeding.

**consent.** To get approval for what is to be done or proposed by another.

**controlled substance.** A substance whose manufacture, possession, or sale is controlled by the law.

## D

**deficient.** Having too little of something, such as a nutrient in the body.

**dehydration.** The condition that results when fluids are lost from the body and not replaced; symptoms can include thirst, weakness, exhaustion, confusion, and may result in death.

**dependency.** Addiction to a substance.

**depressant.** A drug that reduces the activity of a bodily function.

**depression.** (1) A sunken or low place in the ground; (2) In low spirits; dejection; sadness.

**designer drug.** A laboratory-made drug that resembles an illegal drug, but is slightly different chemically. Since drugs are categorized as legal or illegal based on their exact chemical formulas, designer drugs are legal, at least for a while, because they have new formulas.

**diabetes.** A disease that causes too much blood sugar to build up in the body. If untreated, this can damage the heart, eyes, and kidneys.

**dilated.** Abnormally enlarged or expanded.

**discoloration.** Altered or changed color.

**disinfect.** To destroy harmful germs; to purify.

**dislocation.** The separation of a bone from its joint.

**distilled.** Heated and condensed to purify, form a new substance, or concentrate.

**diuretic.** A food, medicine, etc., that promotes or tends to increase the excretion of urine.

**dressings.** Ointment and bandages applied to a wound.

**drug.** Any chemical that causes a change in a person's body or behavior.

**dysentery.** Any of several intestinal disorders usually caused by infection and characterized by stomach pain and diarrhea with passage of mucous and blood.

## E

**electrolyte.** A substance that, when dissociated into ions in solution or fused, becomes electrically conducting.

**elevated.** Raised up.

**Emergency Medical Service (EMS).** Medical professionals dedicated to the reduction of morbidity and mortality of residents through the provision of Advanced and Basic Life Support care, medically directed rescue and transportation of the ill and injured.

**emphysema.** A disease of the lungs in which air sacs become enlarged and rigid, causing breathing difficulties, coughing, and possible heart problems.

**episodic.** Occurring, appearing, or changing at irregular intervals; incidental.

**esophageal.** Of or relating to the esophagus (a muscular tube through which food passes from the mouth to the stomach).

**essential fat.** Fat which the body needs in certain amounts to maintain bodily functions.

**ethyl alcohol.** The type of alcohol found in beer, wine, and distilled spirits.

**evaluate (-ing).** (1) To determine whether an act, process, or method has been attained; to assess; (2) To determine the significance of by careful appraisal and study.

## F

**faint (-ing).** (1) Without strength; weak and dizzy; (2) To lose consciousness briefly because of a temporary decrease in the amount of blood that flows to the brain.

**fat soluble vitamin.** A vitamin that is absorbed through the intestinal tract with the help of fats and is stored in the body.

**fatigue.** Weakness or exhaustion due to hard work or mental effort.

**fats.** Nutrients made up of fatty acids that are insoluble in water and provide energy to the body.

**ferment.** To produce a chemical change in a carbohydrate material resulting in alcohol.

**fiber.** Coarse food made mostly of carbohydrates, such as bran or lettuce that serves to stimulate and aid the movement of food through the intestines.

**fight or flight response.** An involuntary reaction to an immediate danger or threat, which prepares a person physically to either respond to the danger or run away.

**first aid.** The immediate care given to a victim of injury or sudden illness before professional medical help arrives.

**flush.** To cleanse or wash out with running water or another liquid.

## G

**galvanized.** Coated with zinc.

**gateway.** A term attached to alcohol and tobacco due to the fact that their use often leads to further drug abuses.

**generalized.** Derived from a general conclusion, concept, or feeling; vague and indefinite; not associated with any specifics.

**Good Samaritan law.** A law enacted in most states that protects people from lawsuits if medical complications arise after they have administered first aid correctly.

## H

**hallucinogens.** Drugs that cause hallucinations.

**heart attack.** The condition that results when some of the tissue in the heart is prevented from receiving its normal blood supply and dies.

**heat cramps.** A condition that is marked by the sudden development of cramps in skeletal muscles and that results from prolonged work in high temperatures accompanied by profuse perspiration with loss of sodium chloride from the body.

**heat exhaustion.** A condition that occurs when a person is exposed to excessive heat over a period of time, caused by the loss of water and salt from the body through excessive perspiration.

**heatstroke.** A life-threatening condition caused by prolonged exposure to high heat.

**Heimlich Maneuver.** An upward push to the abdomen given to clear the airway of a person with a complete airway obstruction; procedure used to expel an object stuck in the airway of a choking victim.

**hemorrhages.** Heavy or uncontrollable bleeding from blood vessels.

**hygiene.** Practices or conditions that aid in good health; the science that deals with maintenance of good health and the prevention of infection and disease.

**hypertension.** High blood pressure.

**hypothermia.** Too little body heat with abnormally low internal body temperature.

## I

**illegal drugs.** A chemical that is forbidden by law because its dangerous and often unpredictable effects outweigh any useful purpose it may have.

**incisions.** A wound that is made by cutting into the body.

**inhalants.** Medications or chemicals that are inhaled.

**insulate.** To use materials to protect or isolate from the elements of weather.

**intoxicated.** Drunk; affected by alcohol to the point that physical and mental control are significantly decreased.

**iodine.** A nonmetallic element having important medical uses.

**isometric.** Building muscle strength using resistance without joint movement.

**isotonic.** Building muscle strength using resistance with joint movement.

## L

**lacerations.** A wound that is torn and ragged.

**lice.** Small, wingless, parasitic insects that live on warm-blooded animals, especially in hair, and suck the animal's blood.

**ligament.** A fibrous band of tissue that holds bones together at a joint.

## M

**manic-depressive illness.** Emotional disorder characterized by the alternation of extreme high and low moods.

**meditation.** The act of focusing the mind on a single point of reference to achieve a relaxed physical and mental state.

**metabolic.** Relating to the chemical processes of living cells or organisms, which result in growth, the production of energy, and the maintenance of the vital functions of the body.

**metabolism.** The chemical process by which the body produces energy and maintains vital functions.

**migraines.** Recurrent severe headaches often with nausea and vomiting.

**minerals.** Natural chemical elements of the earth used by the body to supply necessary nutrition.

**misuse.** The incorrect or improper use of a substance.

**mono-unsaturated fat.** Oil or fat that is liquid at room temperature, is low in

hydrogen, and can lower the level of blood cholesterol.

**mottled.** Marked with irregular spots or splotches of different colors or shades of color.

## N

**narcotic.** A drug used medically to relieve pain, produce sleep, and dull the senses.

**neutralize.** To counteract the activity or effect of; to make chemically neutral.

**nicotine.** An addictive drug found in tobacco.

**nutrients.** Substances found in food which nourish the body.

## O

**obesity.** Overfat to the point of injuring health.

**open fracture.** A fracture in which the broken end of a bone pierces the skin.

**osteoporosis.** A condition characterized by a calcium deficiency in the bone mass in which the body pulls calcium from the bones, causing them to lose their density and possibly leading to fractures.

**Over-the-counter.** A medicine that can be purchased legally without a prescription.

## P

**personal hygiene.** An individual's practice of taking care of him or herself in order to maintain good health.

**perspiring.** Giving off moisture through the pores of the skin.

**poly-unsaturated fat.** An oil or fatty acid containing more than one double or triple bond and is therefore cholesterol defensive.

**precipitation.** Water or moisture, such as mist, rain, snow, or hail, that drops to the earth.

**pressure bandage.** A snug bandage used to control bleeding.

**pressure points.** A point on the body where a major artery lies near the skin surface and passes over a bone.

**proteins.** Nutrients that are made of amino acids and that maintain body tissues and supply energy to the body.

**purified.** Free from undesirable elements or impurities; cleaned.

## R

**rabies.** A viral disease affecting the central nervous system of mammals that is transmitted by a bite from an infected animal; it can result in paralysis and death if left untreated.

**Referenced Daily Intakes (RDI).** Standards developed by the United States government for the regulation of vitamin and mineral requirements.

**rescue breathing.** The act of forcing air into and out of the lungs of one person by another person.

## S

**sanitation.** The promotion of hygiene and prevention of disease by working to keep a clean and healthy environment.

**saturated fat.** A fat that does not melt at room temperature and can raise the blood cholesterol level.

**scalding.** The burning of the skin by a substance that is near boiling in temperature.

**second-hand smoke.** Smoke that escapes from the burning end of a cigarette as well as smoke that is exhaled by a smoker.

**simple carbohydrate.** A sugar that is found in the body in its simple state and supplies the body with short-term energy.

**smoldering.** Burning slowly without flame but often with much smoke.

**solvents.** Liquid substances capable of dissolving or eliminating something unwanted.

**splint (-ing).** To support and immobilize a body part with a stiff material.

**sprain.** An injury caused by twisting a ligament or tendon around a joint.

**stimulant.** A drug, drink, or other substance that speeds up the activity of the mind or body.

**storage fat.** Fat which the body keeps in reserve that can lead to overfat problems or obesity.

**strain.** An injury caused when a muscle or tendon is overstretched.

**stroke.** A reduction in blood flow to a part of the brain.

**subcutaneous.** Beneath the top layer of the skin.

**substance.** Something (such as drugs or alcohol) deemed harmful and usually subject to legal restriction.

**superficial.** Not serious; on the surface; shallow.

**systemic.** Affecting the body in general; acting throughout the body after absorption or ingestion.

## T

**tar.** A substance found in tobacco that can cause cancer and respiratory problems.

**tetanus (also lockjaw).** An acute infectious disease caused by the poison of a certain bacterium that enters the body through a wound, resulting in muscle contractions, then rigidity and death; it is preventable by immunization.

**tobacco.** The leaves of cultivated tobacco prepared for use in smoking or chewing or as snuff.

**tone.** (1) A sound of distinct pitch, loudness, vibration, quality, and/or duration; the particular or relative pitch of a word or phrase; (2) A degree of tension or firmness, as of muscle.

**trauma.** A behavioral state resulting from mental or emotional stress or physical injury that has a lasting effect on the mind. A physical wound or injury.

## V

**veins.** Blood vessels that carry blood from all parts of the body to the heart.

**venom.** A poison produced by animals such as snakes and spiders that is transmitted by a bite or sting.

**ventilation.** Circulation of air; a system or means of providing fresh air.

**visualization.** The act of forming a mental image of.

**vitamins.** Nutrients that occur naturally in plant and animal tissue and are required for proper functioning of the body.

## **W**

**water soluble vitamin.** A vitamin that is dissolved in the water of tissues.