

Competing for Resources

Cross-Curricular Focus: Life Science

The resources of any one environment are limited. Depending on which plants and animals share the environment, there may not be enough of everything to go around. All organisms need water, food and shelter to stay alive. These resources are **beneficial**, which means they are good for the organisms. When an environment is low on any of these things, organisms must compete for them. Those who get to the resources first have the best chance of survival. Being without water, food or shelter for very long is **detrimental**, which means it is harmful to organisms.

The resources in an area determine how big the plant and animal populations can be. Sometimes there are too many living things in an area. The weakest of the populations will not be able to get the resources they need. As the weak die out, the populations get smaller. Finally, the area's resources recover and can support them again.

Sometimes people will capture members of large animal populations and move them. They take them to another location with less competition. This helps them the animals survive.

Sometimes the government will allow hunting of large animal populations. Deer and rabbits can be a good food source for people. When there are too many of these animals in an area, they sometimes come into the cities looking for food. They often cause trouble. Hunting keeps the number of animals under control.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Why do organisms sometimes have to compete for resources?

2) What kinds of things are beneficial for organisms?

3) What kinds of things are detrimental for organisms?

4) What happens when populations grow too large for an area?

5) Do you think hunting or relocation is a better solution for over-sized animal populations? Why?

Galileo and His Telescope

Cross-Curricular Focus: Physical Science



Galileo Galilei was born in the year 1564. He was born in the town of Pisa, in what is now Italy. When he was 20 years old, he was studying in Pisa. His father wanted him to be a doctor. Galileo was bored with school. The only subject he really liked was math. Because he was doing well in math, the court mathematician offered to tutor him privately. He said he could become a qualified mathematician. Galileo's father was disappointed, but he agreed.

Because he needed to earn money, Galileo began experimenting with different things. He tried to come up with an invention he could sell for money. He had some success with one invention. It was like a compass that could be used to measure land. He experimented with pendulums, thermometers, and magnets.

He heard that a Dutch inventor had invented something called a spyglass. The inventor was trying to keep it a secret. Galileo decided to work on one of his own. Within 24 hours, he had invented a **telescope**. It could **magnify** things to make them appear ten times larger than real life. One night, he pointed his telescope toward the sky. He made his first of many space observations. Everyone thought the moon was smooth. Galileo saw that it wasn't. The moon was covered in bumps and craters.

As technology has improved, Galileo and many others have made improvements on the telescope. Today, the telescope is a wonderful device that lets us see objects far, far away.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Galileo's father was disappointed when he became a mathematician. What did he want him to be instead?

2) Why did Galileo become an inventor?

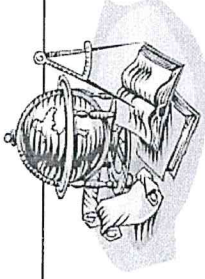
3) Where did Galileo get the idea for his telescope?

4) What did Galileo discover about the moon?

5) Do you think Galileo's inventions made a difference in the world? How?

Location, Location, Location

Cross-Curricular Focus: History/Social Sciences



The world's population lives in many different countries on Earth. However, they are not divided evenly between all the countries. There are some countries that are very overcrowded. There are other countries that seem like they have very few people living in them. Why are people spread around the world so unevenly? There are advantages, or good things, about living in a certain place. There are also disadvantages, or bad things, about the same place.

The two main factors that influence people who are deciding on a location to live are climate and resources. Climate is the usual weather conditions in a region. Areas that have extreme weather are not very popular places to live. The North Pole and South Pole at the top and bottom of the world are good examples. They are beautiful in their rugged, natural way. However, the disadvantage of the very cold and windy conditions usually keeps people away.

Natural resources are things that we get from nature that help us survive. Each region offers different resources. Each region attracts different groups of people. People who enjoy the beach can make their living from the ocean. They can catch and sell fish and other sea creatures. Some people prefer to farm. They can take advantage of rich soil in valleys near rivers.

People may be willing to put up with the disadvantages of an area if the advantages are good. The desert is very hot and dry, but it often has valuable mineral deposits. If the resources are worth enough, people may be willing to live in the desert heat.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

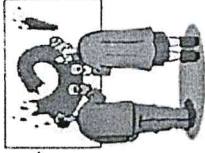
- 1) Based on what you have read, what is the difference between an advantage and a disadvantage? _____

- 2) Name one reason someone might choose to live near the coast. _____

- 3) Why don't many people live near the north or south poles? _____

- 4) What is a natural resource? _____

- 5) What natural resources are there in your local community? _____



Color Shows Mood

Cross-Curricular Focus: Visual Arts

Artists use **color** to create patterns. Color can also show different moods. Bright colors make us feel happy and energetic. Dark colors make us feel calm or sad.

The primary colors are red, yellow, and blue. They are the colors that can be mixed together to make different colors. Mixing two primary colors makes a secondary color. The secondary colors are orange, green, and violet (purple). Orange is made by mixing yellow and red. Green is made by mixing yellow and blue. Violet is made by mixing red and blue. Intermediate colors can be made by mixing a primary and a secondary color together. Some intermediate colors are blue violet and red orange. Black, white, and gray are special colors. They are called neutral colors.

Colors have been organized into a color wheel. It shows the three primary colors, the three secondary colors, and the six intermediate colors. Artists use the color wheel. It helps them know which colors they want to use together.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

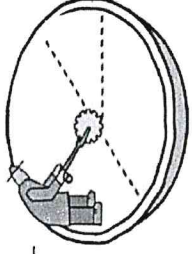
1) What kinds of colors make us feel calm?

2) What kinds of colors make us feel like we have lots of energy?

3) What are the primary colors?

4) What are the secondary colors?

5) What tool do artists use to organize all the colors?



Fractions as Parts of a Whole

Cross-Curricular Focus: Mathematics

You can cut a **whole** thing into equal **parts**. This lets everyone have a fair share. Each of the parts is called a **fraction**. Fractions have special names. The names tell us how many pieces of that size would be needed to make a whole.

The man in the drawing above is cutting a pie. It looks like it is for a giant! He is being careful to make equal parts. When he is done, he will have eight slices that are all the same size. Each slice is called *one-eighth*. A single slice is one of the eight pieces needed to make the whole pie.

Because none of the pieces are gone yet, it is still a whole. No matter how many pieces the pie is cut into, if you have all the pieces, it is still a whole.

The more pieces that are cut, the smaller the pieces have to be. If the pie is cut into only three pieces, the pieces will be pretty big. Each of the pieces will be called one-third. If the pie is cut into five pieces, the pieces have to be a little smaller. You have to get two more slices out of the pie. Each piece is called one-fifth. Other names are one-fourth for four parts, one-half for two parts and one-sixth for six parts.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What is a fraction?

2) How does a fraction get its special name?

3) What do you have if you have all the pieces that the whole was cut into?

4) What happens to the size of the pieces when you have to cut more pieces?

5) If the whole is cut into four pieces, what is the special name for each of the pieces?

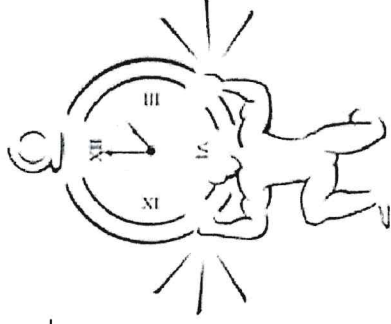
Have You Got the Time?

Cross-Curricular Focus: Mathematics

People today are always thinking about the time. There never seems to be enough time to do all the things we want to do. Believe it or not, there was a time before time was so important. It was enough to know that the sun was out. That meant it was daytime. During these days when the clock seems to control us, doesn't that sound kind of nice?

Time can mean a lot of different things. That's one way we know how important it is for us. We have so many words about it! The smallest amount of time we can measure is called a **second**. When you put 60 seconds together, you get one **minute**. If you take 60 minutes, you get one **hour**. The hands of the clock go all the way around twice in 24 hours, giving us one **day**.

If you want to look at time beyond one day, you leave the clock and look at a calendar instead. There are about 30 days in one **month**. Some months have an extra day; February has a couple less. There are 12 months in one **year**. Time never stops.



Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

- 1) What are people always thinking about these days?

- 2) We have lots of different words about time. What does that show?

- 3) How many hours are in one day?

- 4) How many seconds are in one minute?

- 5) How many months are in one year?



Money, Money, Everywhere!

Cross-Curricular Focus: Mathematics

Money helps us buy things we need and want.

People earn money by working at all different kinds of jobs. You can earn money even if you are a child. Your parents may pay you to do extra chores around the house.

If you have money, you can use it for many things. You can pay bills. You can buy things from stores. You can save it in the bank. Before people had money to use, they traded things with each other. Some people used beads or shells for money.

Paper money is also called **dollars**. The numbers on the paper money tell how many dollars it is worth. If it has a one on it, it is a one dollar **bill**. Five, ten, and twenty dollar bills are also common.

Coins are made from different kinds of metal. They are worth part of a dollar. There are dollar coins but they are rare. Amounts less than a whole dollar are counted in **cents**. It takes 100 cents to make a dollar. Each coin is worth a different number of cents. A penny is worth only 1 cent. A nickel is worth 5 cents. A dime is worth 10 cents. A quarter is worth 25 cents.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) How do people earn money?

2) What can we do with money?

3) What did people use before there was money?

4) How can you tell how much paper money is worth?

5) How do we count money that is less than a whole dollar?

