

Name: _____

DeSoto County Schools
Distance Learning Packet
5th Grade
ELA, Math, and Science

Week 7: May 4th- May 8th
Week 8: May 11th- May 15th
Week 9: May 18th- May 22nd

Lesson 14

Varieties of English: Dialect and Register

 **Introduction** There are many ways to speak English. You speak informally with your friends but formally to your principal. You use words common to the time and place in which you live. Fiction writers often make their characters speak different varieties of English.

- **Dialect** is how a group in a specific place and time speaks. Below, a young man tells his story in dialect. He uses language spoken in towns along the Mississippi River in the 1800s.

Dialect	Standard English
"You don't know about me without you have read a book by the name of <i>The Adventures of Tom Sawyer</i> ; but that ain't no matter."	"You wouldn't know about me unless you've read a book called <i>The Adventures of Tom Sawyer</i> , but that's all right."

- **Register** is how people speak in different situations. When you talk to a friend, you probably use the informal language of everyday speech. When you give an oral report, however, you are more careful about the language you use. Your language is formal.

Informal	Formal
"This experimint is so messed up. We don't know what's up!"	"We're having trouble with this experiment. We can't figure it out!"

Guided Practice

With a partner, read aloud the conversation below. Then, on a separate piece of paper, rewrite the dialogue as if it were a formal discussion between Jason and his coach.

HINT Informal language includes slang terms such as *dude*, *ace*, and *ain't*. As you read, **underline** any slang you need to change for a more formal dialogue.

"Okay, dude. You gotta get your head in the game," Scott said.

"I hear they got a pretty heavy guy pitching today. And there ain't no ties—only one team can win," Jason answered.

"You're not worried, are you? You're an ace hitter!" said Scott.

"I ain't scared, dude," Jason mumbled. "I just need to chill."

 Independent Practice

This dialogue from *The Adventures of Tom Sawyer* is written in dialect. Tom is whitewashing a fence when his friend Ben Rogers comes along. Rewrite this dialogue as if two friends were talking today.

- 1 BEN: Hello, old chap, you got to work today, hey?
TOM: Why, it's you Ben! I warn't noticing.

- 2 BEN: Say, I'm going in a-swimming, I am. Don't you wish you could? But of course you'd druther *work*—wouldn't you? Course you would!

- 3 TOM: What do you call work?
BEN: Why, ain't *that* work?
TOM: Well, maybe it is and maybe it ain't. All I know is, it suits Tom Sawyer.

- **Try It** Look back at your story from Part 1. Add in dialogue that is informal and some that is formal.

Using Verb Tenses

 **Introduction** Use the correct verb tense to tell readers when something happens.

- Use **simple tenses** to show that an action happens in the present, past, or future. The simple past tense is usually formed by adding the ending *-ed*.

Present	We <i>listen</i> to music on our MP3 players or cell phones.
Past	Years ago, people <i>listened</i> to music on record players.
Future	Someday, people <i>will listen</i> to music on other devices.

- Irregular verbs** change in special ways to show past time.

Present	buy	sell	break	become	sing	go
Past	bought	sold	broke	became	sang	went

- Progressive tenses** show continuing actions in the present, past, or future. To make the progressive tense, add a form of the helping verb *be* to a main verb that ends in *-ing*.

Present	A radio station <i>is playing</i> a song by a great singer.
Past	Earlier, the station <i>was playing</i> another song by her.
Future	Tomorrow, her band <i>will be playing</i> music in the park.

 **Guided Practice** Circle the correct form of the verb to complete each sentence.

HINT

In progressive tenses, the helping verb must agree with the subject.

- Use *am* and *was* with *I*.
- Use *is* and *was* with *he, she, it,* and singular nouns.
- Use *are* and *were* with *we, you, they,* and plural nouns.

1 Every day when I wake up, I _____ on my MP3 player.

turn will be turning turned

2 Yesterday, I _____ a song when I dropped the MP3 player.

am choosing were choosing was choosing

3 The music _____ and would not start again.

is stopping stopped will stop

4 I said to my mother, "I _____ my MP3 player!"

break is breaking broke

5 I _____ money for a long time to buy a new one.

are saving will be saving will be save

 Independent Practice

For numbers 1–5, replace the underlined verb with the word or words that make the sentence correct.

1 In the late 1990s and early 2000s, portable MP3 players becoming popular.

- A will become
- B will be becoming
- C became
- D was becoming

2 Soon after that, people download music from the Internet.

- A were downloading
- B is downloading
- C will be downloading
- D was downloading

3 Our neighbors still have an old record player, and they listen to a record on it right now.

- A is listening
- B will be listening
- C listened
- D are listening

4 Next month, my class go on a field trip to the Music History Museum.

- A be going
- B will be going
- C was going
- D went

5 I hope that we see some old musical instruments and recording devices there.

- A am seeing
- B will see
- C is seeing
- D were seeing

► **Try It** Reread the beginner's guide you wrote in Part 1. It should be written in present tense. Make sure all of your verbs are present tense. Fix any errors.

Lesson 12

Revising Sentences

Introduction Good writers revise their writing to make sure their ideas grab and hold a reader's attention. There are many ways to revise sentences to improve them.

- You can **expand** a sentence by adding details that make the sentence more interesting.

Add Details	<p><i>Weak:</i> Hula is a beautiful Hawaiian dance.</p> <p><i>Better:</i> With its pulsing drums and flowing steps, hula is a beautiful Hawaiian dance.</p>
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- You can **shorten** a sentence by deleting unnecessary words or cutting repetition. Short sentences get to the point. They also create rhythm when mixed with longer sentences.

Delete Words	<p><i>Weak:</i> I'll start by saying that I think the dancers move like swaying palm trees.</p> <p><i>Better:</i> The dancers move like swaying palm trees.</p>
Avoid Repetition	<p><i>Weak:</i> Hula is fairly simple and not difficult because it is a dance based on just six basic moves that dancers do.</p> <p><i>Better:</i> Hula is fairly simple because it is based on just six moves.</p>

Guided Practice

Improve each sentence by adding details, deleting words, or avoiding repetition. If you need to add details, use facts from the tables above.

HINT To decide the best way to revise a sentence, ask yourself: Does it need fewer words or more details?

- 1** Hula is a dance.

- 2** Now I will tell you that hula is not just for women, but in fact men also dance hula, too.

- 3** Modern hula today includes stringed instruments like the ukulele, guitar, and other stringed instruments that are also used in addition to traditional instruments like rattles and gourds.

 Independent Practice

For numbers 1–3, choose the best way to revise the sentence.

1 Hula dancers often wear things they find in nature.

- A Hula dancers wear costumes.
- B Hula dancers wear natural things.
- C Hula dancers often wear headbands and bracelets made of leaves.
- D Hula dancers often wear things from nature such as natural leaves.

2 Some types involve chanting.

- A Chanting is in some types.
- B Chanting is an important part of some types of hula.
- C When hula dancers dance the hula, sometimes they chant as they dance.
- D Sometimes people chant during the hula when they do certain types of hula.

3 Queen Lili'uokalani wrote lots of songs, and one song she wrote was the famous song called "Aloha Oe."

- A Queen Lili'uokalani wrote many songs, including the famous "Aloha Oe."
- B Queen Lili'uokalani wrote "Aloha Oe."
- C Queen Lili'uokalani wrote songs, and she wrote "Aloha Oe," a famous song.
- D Queen Lili'uokalani wrote songs, and one she wrote was famous.

► **Try It** Reread your story from Part 1. Look for places where you can revise sentences to make the story grab the reader's attention. Find at least one sentence to add details to.

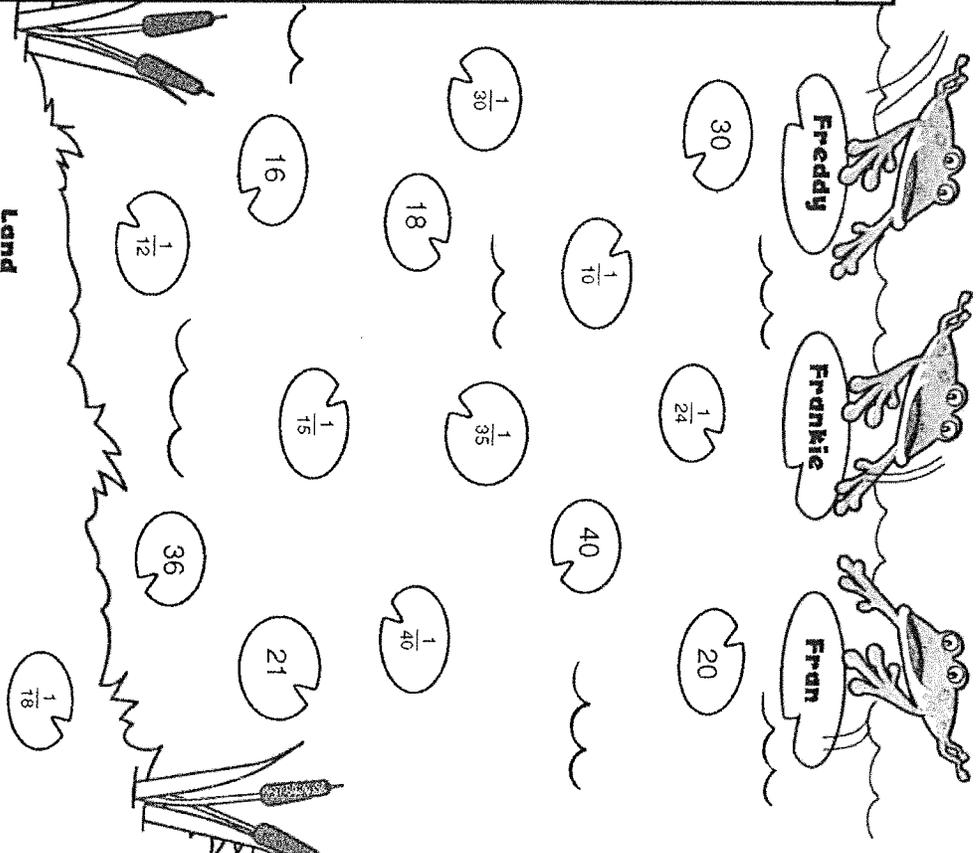
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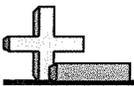
LEAPING THE WAY

Solve each problem. Then draw a line from each frog to the matching answers from its column. You'll find out who is the first to leap back to land!

Freddy	Frankie	Fran
1. $\frac{1}{4} \div 6 =$ _____	2. $5 \div \frac{1}{4} =$ _____	3. $10 \div \frac{1}{3} =$ _____
4. $\frac{1}{5} \div 7 =$ _____	5. $8 \div \frac{1}{5} =$ _____	6. $\frac{1}{2} \div 5 =$ _____
7. $\frac{1}{6} \div 5 =$ _____	8. $\frac{1}{10} \div 3 =$ _____	9. $9 \div \frac{1}{2} =$ _____
10. $7 \div \frac{1}{3} =$ _____	11. $4 \div \frac{1}{4} =$ _____	12. $\frac{1}{3} \div 5 =$ _____
13. $\frac{1}{6} \div 2 =$ _____	14. $\frac{1}{9} \div 2 =$ _____	15. $12 \div \frac{1}{3} =$ _____



The winner is _____



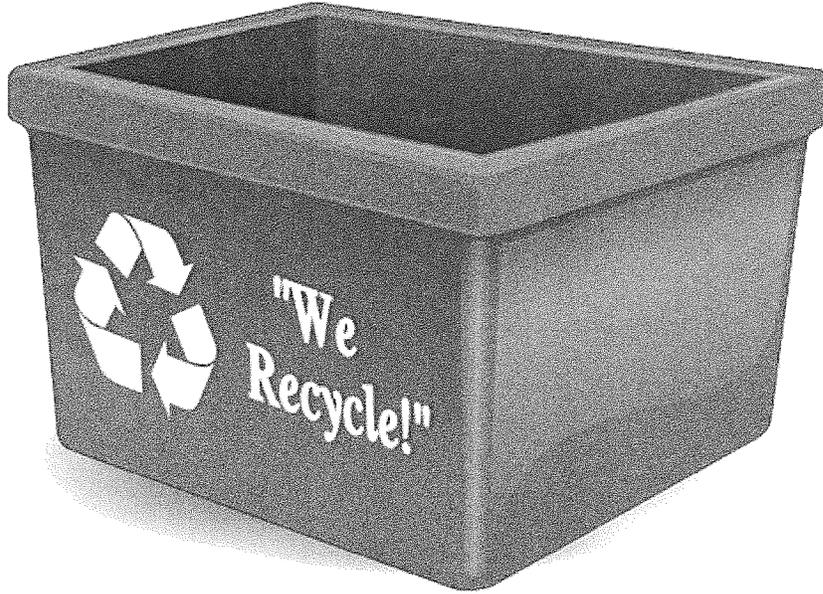
Solve each problem.

Answers

- 1) A sub shop sold sandwiches that were one-fifth of a foot long. If you were to cut the sandwich into 3 equal pieces, what fraction of a foot would each piece be? 1. _____
- 2) A store had 3 boxes of video games. How many days would it take to sell the games if each day they sold one-fifth of a box? 2. _____
- 3) A pizzeria had 4 cans of tomato sauce. How many pizzas could they make with the cans if each pizza took one-fourth of a can? 3. _____
- 4) Oliver used one-fourth of a cup of sugar to make a pitcher of lemonade. If he were to pour the lemonade into 3 smaller glasses how much sugar would be in each glass? 4. _____
- 5) A toy plush weighed one-fourth of a pound. A flimsy box can hold 5 pounds. How many toy plushes could the box hold? 5. _____
- 6) Cody had to write 6 pages for a book report. How many hours would it take him to write it if he wrote one-seventh of a page each hour? 6. _____
- 7) A farmer was dividing up his one-eighth of an acre of land between his 6 children. Since each child got the same amount of land, what fraction of the acre did each get? 7. _____
- 8) A small book took one-sixth of a ream of paper to make. How many books could be made with 3 whole reams of paper? 8. _____
- 9) A lawn mowing company had to mow one-fourth of a mile of grass. To make it quicker, they split the amount evenly between 2 workers. What fraction of the mile did each person mow? 9. _____
- 10) An aquarium had 2 tons of fish food. How many months would it take them to use it all if they used one-third of a ton each month? 10. _____
- 11) At the end of the day a restaurant had one-fourth of a pound of leftover food. If 9 employees wanted to split it, how much would each employee get? 11. _____
- 12) A car wash had to make their soap last 3 days. If they only have one-fifth of a gallon of soap, how much should they use each day so it lasts 3 days? 12. _____
- 13) At a restaurant 3 people were at a table when the waiter brought out one-fourth of a bowl of cheese dip. If they split the bowl evenly, how much would each person get? 13. _____

Recycling & Conservation: Recycling -- How It Works

by ReadWorks



recycling bin

When you throw your soda can into a recycling bin, you probably never think of where it has been or where it is going. Soda cans are one aluminum product that can be entirely recycled. Manufacturers will take that can from the bin. They will process the aluminum and make new cans or other products. How do other recycled materials get used?

Recycled materials make a variety of products. Recycled paper doesn't just make paper and cardboard. It also is used in insulation and animal bedding. Glass is ground up to make new glass containers. It is also used as a substitute for sand in concrete. There is also organic recycling. That is when plant and food scraps are recycled through composting. With composting, scraps are allowed to decay. Then they are added to soil to make it more fertile.

People are not the only ones who recycle. Many businesses recycle, too. Offices often have recycling bins for paper and cardboard. Cafeterias have receptacles for cans and bottles. The soda cans that get recycled really add up. More than half of all aluminum soda cans in the United States get recycled. Recycling cans, instead of making new ones, saves factories a huge amount of energy. The amount of energy saved by one single 12-ounce soda could light a bulb for almost 4 hours! Recycling benefits the planet in a big way.

Name: _____ Date: _____

1. What can recycled paper be made into?
 - A. cardboard, insulation, and animal bedding
 - B. glass containers and sand in concrete
 - C. new cans and other products
 - D. recycled aluminum

2. How does the author organize the information in this passage?
 - A. The author lists the information in order of importance.
 - B. The author discusses a main idea by using examples and related concepts.
 - C. The author provides evidence to convince readers of his or her opinion.
 - D. The author describes a problem and several possible solutions.

3. Compared to recycling, the energy required to make a soda can from scratch uses
 - A. less power
 - B. the same amount of power
 - C. no power
 - D. more power

4. It can be concluded from information in the last paragraph that recycling is good for the Earth because it
 - A. saves energy
 - B. saves lives
 - C. creates a cycle
 - D. lights a bulb

5. What is the main idea of this passage?

- A. Recycled paper can make cardboard and insulation, recycled glass can make new glass containers, and recycled plants and scraps can make new soil.
- B. When an aluminum can is recycled, manufacturers can process the aluminum and make new cans.
- C. People and businesses can save money, time, and energy through recycling!
- D. Recycling involves the making of new products from materials that people and business have used.

6. At the end of the first paragraph, the author writes, "How do other recycled materials get used?" The author included this sentence to

- A. question the reader's comprehension of the first paragraph
- B. summarize the major points in paragraph one
- C. transition the reader to the next paragraph, which answers the question
- D. create a mood of suspense within the passage

7. Choose the answer that best completes the sentence below.

Manufacturers will take a soda can from the bin, _____ process the aluminum and make new cans or other products.

- A. after
- B. except
- C. but
- D. then

8. Evidence from the third paragraph suggests that recycling can save energy. Why might businesses want to save energy?

9. Describe composting.

10. What can be concluded about the author's opinion of recycling? Use evidence from the passage to support your answer.

WORDS TO KNOW

As you read, look inside, around, and beyond these words to figure out what they mean.

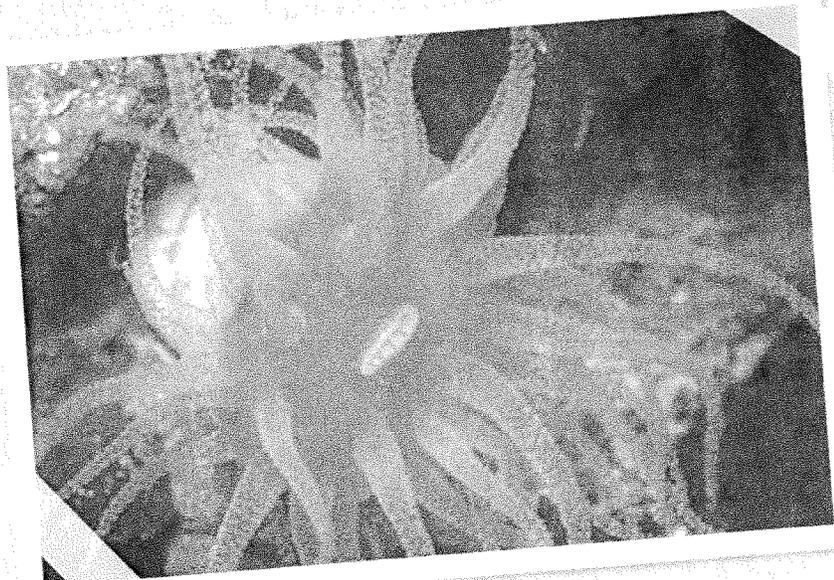
- colonies
- structure
- habitats

FLORIDA Keys

by Darrell Otis

- 1 *July 12.* So far, our summer vacation in Key Largo has been great. We went to Pennekamp Coral Reef State Park yesterday, took a tour on a glass-bottom boat, and saw some amazing coral reefs. Did you know that the Florida Keys have the only living coral barrier reef in North America?
- 2 Our guide told us that the reef is made of coral polyps. These tiny sea animals have soft bodies and live in warm, shallow waters. They form large colonies and are connected to one another. When coral polyps die, they leave behind a hard limestone skeleton. Over time, layers of skeletons build up to form a structure called a reef. A coral reef grows slowly upward from the ocean floor, and it may only grow one inch every year.
- 3 On top of the reef, there are thousands of living coral polyps. Because coral polyps are animals, they need to eat food. At night, they reach out their tentacles, or long feelers, to catch food that floats by. They also get their food from tiny algae that live inside them. The algae use the sun's energy to produce food.

Check out this close-up photo of a coral polyp! It clearly shows the tentacles (the long feelers) that they use to catch food.





I took this photo while scuba diving in a kelp forest off the coast of California. The bass at the upper left looks pretty cozy—this is his natural habitat, after all.

- 4 Many types of animals live in the coral reefs in Key Largo. They swim and hide among forty kinds of soft and hard corals. I saw colorful tropical fish, spiny lobsters, and sea urchins. Shrimps and crabs also live on coral reefs.
- 5 Last year, our family took a trip to California. There, I had a chance to look at kelp forests up close. Both kelp forests and coral reefs are underwater habitats.
- 6 Kelp is long, brown algae that lives in cool, shallow waters. Similar to coral polyps, kelp needs sunlight and a hard surface in order to grow. Kelp has three parts: the holdfast, the stipe, and the blade. The holdfast is the part that attaches to the ocean floor; the stipe connects the holdfast to the blade; and the blade is the leafy part that takes in sunlight and converts it to food.
- 7 Kelp forests form when kelp grows closely in crowded groups. Like coral reefs, kelp forests provide homes for many kinds of sea life, including fish, jellyfish, sea urchins, and otters. These animals can hide in the long, swaying kelp.
- 8 Kelp can grow two feet a day! At Monterey Bay Aquarium, I saw kelp that grew 28 feet high, but some giant kelp reaches a height of 200 feet. I like going to places where I can learn while having fun.

WORDS TO KNOW

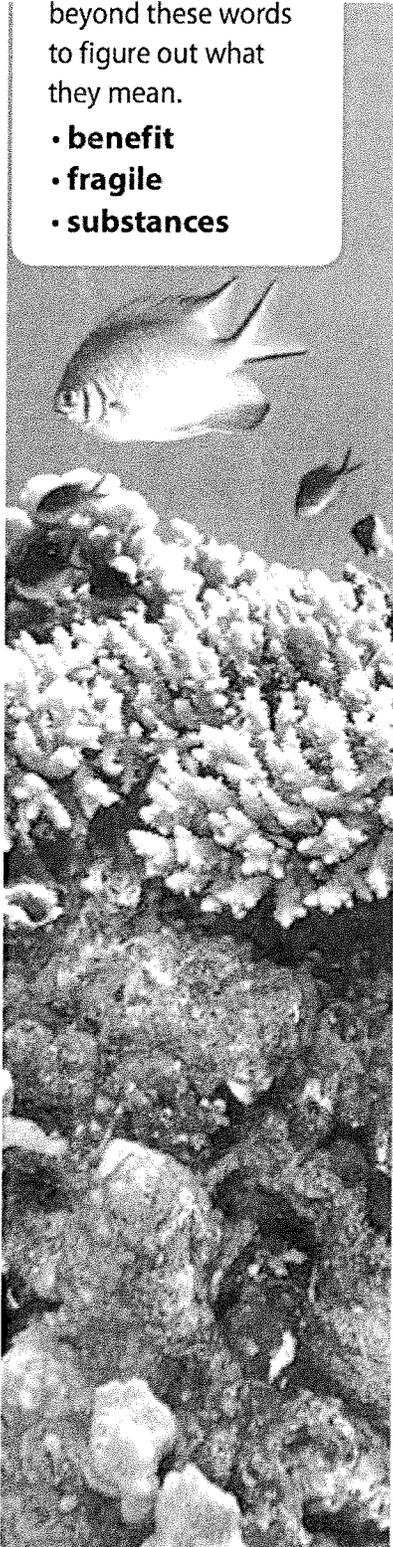
As you read, look inside, around, and beyond these words to figure out what they mean.

- **benefit**
- **fragile**
- **substances**

Keep Coral Reefs Healthy

by Mary Wilford

- 1 Coral reefs are extremely important. Known as the “rainforests of the sea,” they provide homes to millions of different plants and animals. Coral reefs support roughly 25 percent of all the ocean’s creatures. Furthermore, they benefit the economy by encouraging tourism and the fishing industry. Also, they provide ingredients to make new medicines. We must try to protect our fragile coral reefs.
- 2 Coral reefs are made of small animals called coral polyps (PAH lips). Coral polyps are sensitive. They often react to changes in their environment. For example, one change that causes harm to coral reefs is a rise in the water temperature. Usually, corals live in water that is 70°F to 85°F. If the temperature rises by only one or two degrees, coral polyps become stressed. As a result, they will expel, or push out, the tiny plants called algae that live inside their bodies. However, coral polyps need these algae to survive. The algae provide oxygen and food. Without algae, coral polyps cannot get enough food. Therefore, they may starve and die.
- 3 If algae are expelled, coral polyps change color. They turn chalky white because their brilliant colors came from the algae in their tissues. This process is known as coral bleaching. Bleached coral reefs can sometimes recover. However, a large number of coral polyps may die as a result of bleaching. One of the worst examples of coral bleaching happened in 1998. About 16 percent of the coral reefs around the world were damaged or died.
- 4 Another threat to coral reefs is pollution. Acid rain, oil spills, and chemical fertilizers cause water pollution. These substances poison coral polyps and other animals that live in coral reefs. Coral polyps can only grow in very clear, clean water with plenty of sunlight. The algae that live in coral polyps use sunlight to make food. But water pollution makes the water cloudy. There is less sunlight, so algae cannot make food for the coral polyps.
- 5 We can help preserve and protect our precious coral reefs. First, we need to reduce air and water pollution. One way to do this is walk or ride a bike instead of using a car. Another way is to stop littering and dumping harmful chemicals into the ocean. You don’t have to live near the ocean to help the coral reefs. Let’s start today!





Think

Use what you learned from reading the journal entry and the editorial to answer the following questions.

- 1** This question has two parts. First, answer Part A. Then answer Part B.

Part A

Which statement **best** describes a major difference between the text structures of “Florida Keys” and “Keep Coral Reefs Healthy”?

- A** “Florida Keys” tells why it is more important to save the kelp than the coral reefs, while “Keep Coral Reefs Healthy” tells about events in the history of coral reefs.
- B** “Florida Keys” explains the similarities and differences between coral reefs and kelp, while “Keep Coral Reefs Healthy” tells about causes and effects of damage to coral reefs.
- C** “Florida Keys” is a personal account of seeing life in the ocean, while “Keep Coral Reefs Healthy” compares the different types of damage that pollution does to the coral.
- D** “Florida Keys” presents inspiring reasons for learning more about ocean life, while “Keep Coral Reefs Healthy” presents inspiring reasons for saving the reefs.

Part B

Choose **one** sentence from **each** passage that supports the answer in Part A.

- A** “Our guide told us that the reef is made of coral polyps.” (“Florida Keys”)
- B** “The algae use the sun’s energy to produce food.” (“Florida Keys”)
- C** “Similar to coral polyps, kelp needs sunlight and a hard surface in order to grow.” (“Florida Keys”)
- D** “Coral reefs are extremely important.” (“Keep Coral Reefs Healthy”)
- E** “For example, one change that causes harm to coral reefs is a rise in the water temperature.” (“Keep Coral Reefs Healthy”)
- F** “Let’s start today!” (“Keep Coral Reefs Healthy”)

- 2 The box below gives details about how the journal entry by Darrell Otis and the editorial by Mary Wilford present information.

Details
<ul style="list-style-type: none">• Explains how coral grow• Explains why it is important to take care of ocean life• Describes what kelp looks like• Describes the effects of pollution on ocean life• Describes the topic with emotional language• Describes the difference between kelp and coral

Write details from the list to complete the chart below. Use **each** detail **one** time.

Journal Entry by Darrell Otis	Editorial by Mary Wilford	Both Passages

- 3 In paragraph 6 of "Florida Keys," what is the meaning of converts?
- A reaches
 - B attaches
 - C digests
 - D changes



4 Short Response Identify the text structures of “Florida Keys” and “Keep Coral Reefs Healthy.” Describe how each structure helps the author present his or her ideas. Use details from **each** text to support your response.

Learning Target

In this lesson, you compared and contrasted how information in texts is structured. Explain how these skills can help you better understand informational texts you read.



Lesson 18

Figurative Language

 **Introduction** Writers use **figurative language**, including similes and metaphors, to help readers imagine what one thing is like by comparing it to something else.

- A **simile** compares two or more things using the words *like* or *as*. The table below contains two sentences with similes. It then explains what those similes mean.

Simile	What It Means
Noah stood <i>as still as a rabbit</i> trying not to be seen.	Noah stood very still.
The <i>world</i> around him was <i>like a beautiful movie</i> .	Noah saw beautiful things happening all around him.

- A **metaphor** compares two or more things *without* using the words *like* or *as*. In the metaphor below, the clouds are compared to sailing ships.

Metaphor	What It Means
White <i>clouds</i> were <i>ships sailing</i> across the sky.	The clouds moved like ships across the sky.

 **Guided Practice**

Find the simile or metaphor in each sentence. Underline the two things being compared. Then write the meaning of the simile or metaphor.

HINT After you find the two things being compared, ask yourself: How are they alike? Use your answer to figure out what each simile or metaphor means.

- 1 Sunbeams were golden threads piercing the clouds.

Meaning: _____

- 2 Mountain goats leaped like dancers from rock to rock.

Meaning: _____

- 3 The butterflies drifted as lazily as falling leaves.

Meaning: _____

- 4 Bright flowers were jewels gleaming in the sunlight.

Meaning: _____

 Independent Practice

For numbers 1–5, choose the correct meaning of the underlined simile or metaphor.

- 1** The landscape was a patchwork quilt of sights and sounds.
- A** The quilt showed a variety of sights and sounds.
 - B** The quilt had a picture of the landscape on it.
 - C** The landscape had a blanket covering it.
 - D** The landscape had a variety of sights and sounds.
- 2** A waterfall gushed like a faucet down the side of the mountain.
- A** The waterfall was powerful.
 - B** The waterfall was narrow.
 - C** A faucet was on the mountain.
 - D** A faucet made the waterfall.
- 3** The brook gurgled as happily as a well-fed baby.
- A** A baby made pleasant sounds near the brook.
 - B** The brook made a pleasant sound.
 - C** There were many fish in the brook.
 - D** The well-fed baby sounded happy.
- 4** Croaking frogs sounded as loud as a marching band.
- A** The frogs marched as they made croaking sounds.
 - B** The frogs were very musical.
 - C** The frogs croaked very loudly.
 - D** The marching band sounded like loud croaking.
- 5** Noah was a sponge, soaking up the landscape's sights and sounds.
- A** Noah was good at cleaning.
 - B** Noah fell into the water and got soaked.
 - C** Noah was thirsty as he watched and listened.
 - D** Noah looked at and listened to everything.

► **Try It** Reread what you wrote in Part 1. Find places to add a simile and a metaphor to your story.

How Soccer Can Help Us Understand Physics

by ReadWorks



Sports provide a great way to understand some concepts in physics. Physics, after all, is the study of matter, motion, force, and energy. And since sports like soccer, swimming and cycling involve bodies moving through space, they can help us understand how the principles of physics work.

Imagine that you're looking at a soccer ball on a grassy field. If you do nothing to the ball, it will stay motionless on the grass. If you kick the ball, it will roll along the grass before coming to rest again. Pretty simple, right?

For thousands of years, though, people thought that objects like this soccer ball come to rest because they have a natural tendency to stop. It took a famous physicist by the name of Sir Isaac Newton, who lived in the 1600s, to prove that this was not exactly correct.

Newton suggested that objects like the soccer ball have a natural tendency to keep moving. The only reason they stop, he believed, is because an unbalanced force acts on them. By an unbalanced force, Newton meant the force applied to the soccer ball by its environment. When kicked, the surface of the ball travels over the grass, creating friction. The taller the grass, and the rougher the surface of the ball, the more friction is created. And the more friction that exists between the ball and the grass, the less it will travel after being kicked.

Now, imagine that there is no grass. Instead, the ball is resting on a frozen lake. When you kick the ball on the ice, the ball will go much farther than it would have on the grass. This is because ice provides a lot less friction than the grass.

Even so, ice does cause some friction. The ball's interaction with the frozen water crystals on the surface of the lake eventually causes it to come to rest again. But now imagine that instead of ice, the ball is in a place where there's no friction at all. The ball is floating in a vacuum. If you remove friction

entirely, kicking the soccer ball would cause it to keep going and going at the same speed, until some force caused it to slow down and stop.

To paraphrase Sir Isaac Newton, a soccer ball on the grass will stay where it is unless acted on by a force. Similarly, once you kick the ball, it will remain in motion unless acted on by force. This, in so many words, is known as Newton's First Law of Motion.

The same principles apply for other sports. Take swimming. Olympic swimmers are in a constant battle with the force of water. Water slows them down. To increase their speed, swimmers often shave their entire bodies, reducing the amount of friction caused by hair. Since a swimming contest can be won or lost by a tenth of a second, anything they can do to remove friction will help-even if it means ridding their bodies of hair.

Recently, Olympic swimmers took to wearing full-body suits in the water, which made swimmers sleeker and reduced underwater friction. Swimmers wearing these suits began to break world records. They started winning all the races. Soon enough, Olympic officials, realizing that these suits posed an unfair advantage, banned the use of suits in Olympic competition. Swimmers had to fall back on their own, hairless skin.

The situation for professional cyclists is slightly different. Unlike the swimmer, who battles the water, the cyclist is confronted with forces from other sources that seek to slow him or her down: the force of the road and the force of the air. Like professional swimmers, pro cyclists are known to shave their body hair, to reduce the amount of friction caused by the wind. But the loss of body hair represents only a tiny reduction in surface friction compared to, say, wearing spandex shorts instead of baggy shorts with pockets that fill up with air as you ride.

To reduce friction and increase speed, cyclists adopt all kinds of techniques. They wear aerodynamic helmets. They crouch low over their bikes. They wear shirts and shorts that cling closely to their skin, preventing air from slipping inside and slowing them down. However, little can be done about the tires' interaction with the pavement. As in the case of the soccer ball, a bicycle wheel will eventually stop spinning if no force acts upon it to keep it moving. The rougher the road, the sooner that bike wheels will come to a stop.

For this reason, cyclists tend to have large, bulging thigh muscles. These muscles allow the cyclist to continue exerting force on the bicycle pedals, which cause the wheels to keep spinning despite their constant interaction with the road. Of course, other factors come into play, too. The heavier you are, the more work you have to do to keep the bike moving-that is, unless you're moving down a hill, in which case the gravitational force of your weight acts to your advantage.

Also, your ability to keep your legs pushing the pedals depends on how fit you are, not just how strong your legs are. Many people who are out of shape would run out of breath before they complete a mile-long bike ride, whereas a person who is fit and has a lot of stamina could travel two miles without much difficulty.

Whether you are in shape or not, what really matters when trying to kick a ball, swim a lap, or bicycle a 5 mile race are the forces of physics. Without them, every time you kicked a soccer ball, the ball would keep going, forever.

Name: _____ Date: _____

1. Once it is in motion, what does an object like a soccer ball have a natural tendency to do?

- A. It has a natural tendency to keep moving.
- B. It has a natural tendency to stop.
- C. It has a natural tendency to change direction.
- D. It has a natural tendency to slow down.

2. What does the author explain in this passage?

- A. The author explains the force of friction, using different kinds of music as examples.
- B. The author explains the sport of soccer, using examples of current teams and players.
- C. The author explains the idea of motion, using different sports as examples.
- D. The author explains the importance of bike safety, using helmets as an example.

3. Swimmers wearing full-body suits that reduced underwater friction were able to swim faster than other swimmers.

What evidence from the passage supports this statement?

- A. Some swimmers shaved their entire bodies to reduce friction caused by hair and increase their speed.
- B. After losing contests by a tenth of a second, some swimmers started ridding their bodies of hair to reduce friction.
- C. Swimmers wearing full-body suits swam at the same speed as swimmers wearing shirts and shorts that clung closely to their skin.
- D. Swimmers wearing full-body suits began to break world records and started winning all the races.

4. Based on the information in the passage, how can friction be described?

- A. Friction can be described as a force that acts on an object in motion and can cause the object to stop.
- B. Friction can be described as a force that acts on an object in motion and can cause the object to speed up.
- C. Friction can be described as the path an object takes after a force acts on it and causes it to move.
- D. Friction can be described as the path an object takes when a force acts on it inside a vacuum.

5. What is the passage mainly about?

- A. why swimmers and cyclists move at different speeds
- B. the motion of bodies and objects
- C. the movement of an object inside a vacuum
- D. the scientific discoveries of Sir Isaac Newton

6. Read the following sentence: "Newton suggested that objects like the soccer ball have a natural **tendency** to keep moving. The only reason they stop, he believed, is because an unbalanced force acts on them."

What does the word **tendency** mean?

- A. a very small chance of something happening
- B. a fifty-fifty chance of something happening
- C. the fear of doing something or acting in a certain way
- D. the way something normally behaves or acts

7. Choose the answer that best completes the sentence below.

Newton suggested that a ball has a natural tendency to keep moving _____ others believed that a ball has a natural tendency to stop.

- A. although
- B. because
- C. before
- D. later on

8. What are some things cyclists do to reduce friction?

9. According to Newton's First Law of Motion, what will happen to a soccer ball that is kicked?

10. The end of the passage states that without the forces of physics, every time you kicked a soccer ball or jumped on a bike, the ball and the bike would keep going, forever. Explain why the ball and bike would keep going, using evidence from the passage.

Why Are THE OCEANS Salty?

by Anupa Desai

- 1 For much of history, it was a mystery why the oceans were salty. Different cultures, assuming that the oceans began as freshwater and only later became salty, came up with their own explanations. The Vikings related a story of a sailor dropping a magical salt grinder to the bottom of the ocean. People in the Philippines told of a giant who carried sacks of salt from island to island but then accidentally dropped them all into the sea. Other cultures had similar stories to explain the cause of the ocean's saltiness.
- 2 Scientists eventually figured out the truth. The stories were correct in one way: The amount of salt in the ocean has increased over time. Where did all the new salt come from? From the land. Most rocks contain salts, and over millions of years the forces of wind, rain, and ice break down the rocks and release the salts. Rainfall carries the salts to rivers, and the rivers carry the salts into the oceans. As a result, the ocean is salty.

OCEANS AND SEAS

by Richard Green

- 1 Some people use the words *ocean* and *sea* interchangeably, but these words refer to different things. An ocean is an enormous body of salt water, such as the Pacific or the Atlantic. In contrast, a sea is a smaller body of salt water, such as the Mediterranean Sea between Africa and Europe. Oceans are so large that people view them as surrounding the continents. The opposite is true for seas: They are surrounded by other, larger geographic features. Some seas are entirely encircled by ocean: The Sargasso Sea in the Northern Atlantic is an example of this. Other seas, such as Hudson Bay in Canada, are enclosed on some sides by ocean and other sides by land. Finally, a few seas, such as the Caspian in Asia, are completely landlocked within continents. Despite their differences, however, all seas have two things in common: They are made of salt water, and they are smaller than the oceans.

Close Reader Habits

When you reread the articles, **underline** details that tell what each passage is about, and **circle** words and phrases that suggest the text structure.

Explore

What text structure does the author of each passage mainly use to present information?



Look for words that show cause and effect or comparison and contrast.

Think

- 1 Identify the purpose and text structure of each passage. Then tell what evidence helped you figure out the structure.

Passage	Author's Purpose	Text Structure	Evidence of Structure
"Why Are the Oceans Salty?"			
"Oceans and Seas"			

Talk

- 2 Share your charts. Look at the evidence you found for each text structure. How does each text structure support the author's purpose? If your partner has good evidence that you do not, add it to your chart.

Write

- 3 **Short Response** Explain how the text structure of each passage supports each author's purpose for writing. Use text evidence to support your response. Use the space provided on page 226 to write your answer.

HINT Be sure to quote words and phrases from each passage as evidence of its text structure.

TSUNAMIS and HURRICANES

by Tim Brown

- 1 Both tsunamis (soo NAHM eez) and hurricanes are powerful storms. They flood lands and damage property. Each kind of storm is extremely dangerous.
- 2 Tsunamis occur mostly in the Pacific Ocean. They form when a large amount of water is displaced, or moved, by an earthquake or another event that disturbs the floor of the ocean. Such a disturbance creates a series of massive waves. This “wave train” may travel up to 500 miles per hour, destroying everything in its path. Luckily, tsunamis are relatively rare. There are only about six every century.
- 3 In contrast, hurricanes may occur on any coastline. Hurricanes form over warm ocean waters during the hotter months of the year. During a hurricane, heavy rains fall, and strong winds blow with speeds of more than 74 miles per hour. The winds rotate around an “eye,” which is the calm center of the storm. In the center, winds are low and skies are clear. On average, a hurricane travels at speeds of only about 15 to 20 miles per hour.
- 4 Both tsunamis and hurricanes have earned their names. The term *hurricane* comes from a Spanish word for “storm.” The term *tsunami* comes from two Japanese words meaning “harbor” and “wave.” Since 1979, weather agencies have given men’s and women’s names to specific hurricanes. In contrast, weather agencies do not normally give names to tsunamis. Regardless of their names or where the words come from, hurricanes and tsunamis alike are fierce storms that most people would rather not experience.

Close Reader Habits

How does Tim Brown structure his information about tsunamis and hurricanes? Reread the article. **Underline** any details that help you understand how Brown organized his information.

Tsunami: A WALL OF WATER

by Yuki Tanaka

- 1 A tsunami is a series of huge waves. Earthquakes cause many tsunamis. Erupting volcanoes or underwater landslides may also trigger tsunamis. Nearly all tsunamis occur in the Pacific Ocean within the “Ring of Fire.”
- 2 Warning signs tell us when a tsunami is approaching. The first warning sign of an approaching tsunami is called *drawback*. The ocean suddenly recedes, or draws back, and then roars forward violently with a chain of extremely high waves. These surging waves can reach from 30 to 100 feet above sea level. They can crash onto land at speeds of 500 miles per hour, causing damage to buildings and injuring or killing animals and people.
- 3 There have been many record-breaking tsunamis throughout history. One of the largest tsunamis happened after Krakatoa, a volcano in Indonesia, erupted in 1883. The eruption caused some waves to rise more than 130 feet above sea level. As a result, about 36,000 people drowned.
- 4 The most deadly tsunami in modern times occurred in the Indian Ocean in 2004. People in India, Thailand, Indonesia, and other parts of Asia were taken by surprise when the tsunami slammed into the coast. This tsunami left millions homeless and killed more than 300,000 people.
- 5 More recently, a powerful earthquake rocked Japan on March 11, 2011. The earthquake caused 60-foot tsunami waves. This resulted in more than 15,000 deaths and more than 25,000 injuries. It destroyed buildings and damaged a nuclear power station. Although Japan has a good warning system, many Japanese could not escape from the dark wall of surging water.

Close Reader Habits

How does Yuki Tanaka structure her information about tsunamis? Reread the article. **Underline** any details that help you understand how Tanaka organized her information.

Think Use what you learned from reading the science articles to answer the following questions.



1 The box below gives details on how the articles by Tim Brown and Yuki Tanaka present information.

Details
<ul style="list-style-type: none">• Describes how tsunamis and hurricanes are different• Explains what causes tsunamis• Explains what causes hurricanes• Gives examples of what happens when storms reach land• Explains what caused several tsunamis in the past• Gives examples of deadly tsunamis

Some science articles tell what happened and why it happened. Others compare and contrast events, ideas, or concepts.

Write details from the list to complete the chart below. Use **each** detail **one** time.

Article by Tim Brown	Article by Yuki Tanaka	Both Articles

2 Select **one** sentence from **each** article that provides the **best** evidence of each article’s text structure.

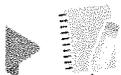
- A** “Such a disturbance creates a series of massive waves.” (“Tsunamis and Hurricanes”)
- B** “In the center, winds are low and skies are clear.” (“Tsunamis and Hurricanes”)
- C** “In contrast, weather agencies do not normally give names to tsunamis.” (“Tsunamis and Hurricanes”)
- D** “A tsunami is a series of huge waves.” (“Tsunami: A Wall of Water”)
- E** “There have been many record-breaking tsunamis throughout history.” (“Tsunami: A Wall of Water”)
- F** “This resulted in more than 15,000 deaths and more than 25,000 injuries.” (“Tsunami: A Wall of Water”)

3 In “Tsunami: A Wall of Water,” how is paragraph 3 **different** from the ones that come before and after it?

- A** It is the first paragraph that describes a specific tsunami.
- B** It is the last paragraph that explains the causes of tsunamis.
- C** It is the last paragraph that describes famous tsunamis in history.
- D** It is the first paragraph that explains how tsunamis damage buildings.

 **Talk**

4 State the purpose of each passage. Then compare how each author presents information about tsunamis. Use the chart on page 227 to organize your ideas and evidence.

 **Write**

5 Short Response Compare and contrast the purpose and text structure of “Tsunamis and Hurricanes” with that of “Tsunami: A Wall of Water.” Use details from **each** passage in your response. Use the space provided on page 227 to write your answer.

HINT Briefly state how the passages are alike. Then discuss how their purposes and structures differ.

TSUNAMIS and HURRICANES

Tsunami: A WALL OF WATER

4 Use the chart below to organize your ideas and evidence.

Passage	Author's Purpose	Text Structure	Evidence of Structure

►  **Write** Use the space below to write your answer to the question on page 225.

5 **Short Response** Compare and contrast the purpose and text structure of “Tsunamis and Hurricanes” with that of “Tsunami: A Wall of Water.” Use details from **each** passage in your response.

HINT Briefly state how the passages are alike. Then discuss how their purposes and structures differ.

Lesson 11

Punctuating Titles of Works

 **Introduction** When you write, you might include the title of a creative work, such as a book or a poem. Titles of creative works are written in special ways.

- Use **quotation marks** (“ ”) around the titles of short works, such as stories, poems, songs, articles, and chapters of books.

Have you read the article “Mountain Time”?

The poem “Blue Ridge” was quoted in it.

The writer also mentioned the song “The Long Way.”

- When writing by hand, **underline** the titles of longer works such as books, magazines, newspapers, plays, and movies. If you are using a computer, show these titles in **italic type**.

The magazine Mountain Days Monthly just arrived at our house.
(if handwritten)

The magazine *Mountain Days Monthly* just arrived at our house.
(if on a computer)

 **Guided Practice**

Read the movie review. Correct the titles of short and long works by adding quotation marks and underlining.

HINT When you write the name of a longer work, either underline or italicize it. Do not do both.

Correct: Ozma of Oz

Correct: *Ozma of Oz*

Incorrect: *Ozma of Oz*

Rockville Gorge is unlike any movie you have ever seen. It is about a group of hikers who get lost in a dense forest. The main character is a newspaper reporter who works for The Daily Tribune. The other hikers are doing research for a book called Black Bears of the County. Did I mention that they all sing? Without warning, the characters start singing I’m So Lost I Feel Alone. Have you ever heard of the poem Turkeys Are for Gobbling? The main character reads that poem out loud for no reason I can figure out. The movie reminded me of my least favorite short story, It’s Just a Bad Dream.

Independent Practice

For numbers 1–5, choose the correct way to rewrite the title of each work.

- 1** Climbing Grandfather Mountain is a great book.
- A** "Climbing Grandfather Mountain"
 - B** *"Climbing Grandfather Mountain"*
 - C** Climbing Grandfather Mountain
 - D** *Climbing Grandfather Mountain*

- 2** The first chapter of the book is called Navigating the Trail.
- A** Navigating the Trail
 - B** "Navigating the Trail"
 - C** "Navigating the Trail"
 - D** *Navigating the Trail*

- 3** During my hike, I hummed a tune called Clear Days.
- A** "Clear Days"
 - B** Clear Days
 - C** *Clear Days*
 - D** *"Clear Days"*

- 4** Every issue of Blue Ridge Camping Magazine has amazing photography.
- A** "Blue Ridge" Camping Magazine
 - B** "Blue Ridge Camping Magazine"
 - C** "Blue Ridge Camping Magazine"
 - D** *Blue Ridge Camping Magazine*

- 5** Mountain Years is a funny play with a surprise ending.
- A** "Mountain Years"
 - B** *"Mountain Years"*
 - C** *Mountain Years*
 - D** "Mountain" Years

Using Area Models and Partial Quotients to Divide

Name: _____

Estimate. Circle all the problems that will have quotients greater than 30. Then find the exact quotients of only the problems you circled.

1 $540 \div 12$

2 $798 \div 38$

3 $429 \div 11$

4 $931 \div 19$

5 $925 \div 25$

6 $390 \div 15$

7 $1,071 \div 51$

8 $1,326 \div 13$

9 $1,856 \div 32$

10 $2,952 \div 72$

11 $1,869 \div 89$

12 $1,798 \div 29$

- 13** Select a problem you did not circle. Describe two different ways you could use estimation to tell the quotient is not greater than 30.

Comparing Decimals

Name: _____

Write the symbol $<$, $=$, or $>$ in each comparison.

1 0.02 _____ 0.002

2 0.05 _____

3 0.74 _____ 0.84

4 0.74 _____ 0.084

5 1.2 _____

6 5.130 _____ 5.13

7 3.201 _____ 3.099

8 0.159 _____

9 8.269 _____ 8.268

10 4.60 _____ 4.060

11 302.026 _____ 300.226

12 0.237 _____ 0.223

13 3.033 _____ 3.303

14 9.074 _____ 9.47

15 6.129 _____ 6.19

16 567.45 _____ 564.75

17 78.967 _____ 78.957

18 5.346 _____ 5.4

19 12.112 _____ 12.121

20 26.2 _____ 26.200

21 100.32 _____ 100.232

22 What strategies did you use to solve the problems? Explain.

NBT
3
compare

Talk About Dense



When you drop ice cubes into a glass of water, the ice floats to the top. Why? Ice is not as dense as water. But is that always a cold, hard fact?

In most substances, the solid form is more dense than the liquid form. A bar of solid gold, for example, sinks to the bottom of a bucket of liquid gold.

Scientists have been trying to determine why water is an exception. In the process, they have developed a new kind of ice that is denser than water.

This new ice is made of water molecules. Unlike regular ice molecules, the molecules in the new ice do not fall into regular patterns. They are packed more tightly, as well.

In order to make ice that sinks, scientists squeeze regular ice at very low temperatures- much colder than the temperature in your freezer. The squeezing and freezing changes the arrangement of water molecules into high-density ice. Scientists have found five new kinds of water ice, in addition to 13 types already known. Scientists think that the new ices may exist naturally elsewhere in the universe.

Name: _____ Date: _____

1. According to the passage, how many types of ice do scientists know about already?

- A. 5
- B. 18
- C. 1
- D. 13

2. According to the passage, what happens when you drop a bar of gold into liquid gold?

- A. it sinks down to the middle
- B. it floats at the top
- C. it sinks to the bottom
- D. it stays at the surface

3. Based on the passage, it is likely that

- A. ice is always less dense than water
- B. scientists have found all the types of ice in the universe
- C. solid gold is less dense than liquid gold
- D. most people would not be able to create ice that is denser than water

4. Read the following sentence and answer the question below: "The squeezing and freezing changes the arrangement of water molecules into high-density ice. Scientists have found five new kinds of water ice, in addition to 13 types already known"

What does the word **arrangement** mean?

- A. smell
- B. feel
- C. pattern
- D. size

5. This passage is mostly about

- A. the discovery of a new ice that is denser than liquid water
- B. how water freezes
- C. how to turn liquid gold into a solid
- D. the discovery of a new kind of water that can be frozen into ice

6. How are the new ice molecules different from the old ones?

7. Based on the passage, did the scientists mean to create a new kind of ice? Why or why not?

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Most ice is less dense than water so it floats, _____ scientists have discovered a new ice that is denser than water.

- A. however
- B. because
- C. so
- D. after

9. Which image demonstrates an exception?



10. If your landlord does not allow pets in the building, but he allows you to have a dog, is that an exception? Why or why not?