sliver

astronomer

telescope series phases

specific

Finish each sentence using the vocabulary word provided.

Possible responses provided.

- 1. (phases) The large apartment building next door to us was built in three phases
- (astronomer) Since she likes studying the planets and stars, I think she will 2. grow up to be an astronomer
- (series) There was a <u>series</u> of pictures that showed what our town looked like long ago
- (rotates) I like when the basketball player rotates the ball on his finger
- (specific) We arrived at his house easily because he gave us very specific directions
- (telescope) I discovered a new star last night when I was looking through my telescope
- (sliver) We avoided stepping on glass at the beach after we noticed that a 7. sliver was sticking out of the sand
- (crescent) We looked up at the night sky and saw that the moon was shaped like a *crescent*

Read the selection. Complete the cause and effect graphic organizer.

Cause	→	Effect
	→	
	-	
	-	
		

Read the passage. Use the ask and answer questions strategy to understand new information in the text.

Stars: Lights in the Night Sky

Long ago, people thought the stars were lights attached to a big dome over Earth. The stars moved across the sky each night. As a result, it looked as if the dome were rotating around Earth. But now we know that this isn't true. Stars are actually huge, glowing balls of plasma, or ionized atoms. Some stars look like little pinpricks. Most are so far away that they can't be seen with the naked eye.

What's a Star?

Stars are made of a mixture of plasmas like hydrogen. As you can imagine, a star's core is extremely hot. When lots of pressure squeezes the star's hot center, the hydrogen changes into helium. This process produces lots of energy. As a result, the star shines a bright light through space.

When you look up at the stars, you may think that most of them produce a white light. Take another look. Stars generally lie on a color spectrum. This range of colors goes from red to yellow to blue. But what do the colors mean? Well, blue stars are much hotter. If you compare the two stars Betelgeuse (BEE-tehl-jooz) and Rigel (RIGH-jehl), you will see that Betelgeuse is reddish and Rigel is bluish. Rigel has the higher core temperature.

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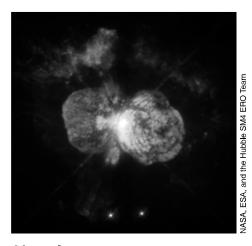
The Sun

The sun is the star at the center of our solar system. It looks bigger than other stars. That's because it's closer to Earth. The sun is actually an ordinary, middle-aged star. If you compare the actual size of the sun to the sizes of other stars, you'll realize that the sun is quite average. But the sun does a huge job for a star its size. It provides Earth with most of the energy it needs to support life. Without the sun, Earth would be just a barren rock floating in space! None of the life now on Earth's surface could exist.

Turning Out the Lights

Stars don't last forever. After billions of years, a star will use up all its hydrogen. A small star simply stops shining. This will happen to the sun one day. Of course, this won't happen for billions of years.

A large star, however, ends in a big explosion. When a star does this, it is called a supernova (soo-per-NO-va). After the explosion, all of the star's material gets crushed and stops



After a large star goes supernova, it may become a black hole.

shining. Especially large stars will then become large objects called black holes. In a black hole, the crushed material becomes so dense that it develops a gravitational (grav-i-TAY-shun-al) pull strong enough to keep even light from escaping. To this day, we still don't know what happens in a black hole.

The sun and other stars have fascinated astronomers for centuries. Stars light up the sky at night, and they make life on Earth possible. But they have a life of their own. Next time you're out on a clear night, look up at the stars. Which one do you think might be the next supernova?

Name ____

A. Reread the passage and answer the questions.

Possible responses provided.

1. Reread paragraph 2. What causes a lot of energy to be produced in a star's core?

The energy is caused when a lot of pressure squeezes the star's hot

center and changes hydrogen into helium.

2. What effect does this cause have on a star?

The star shines a bright light through space.

3. Under the heading "Turning Out the Lights," what is one example of a cause and an effect? Use text evidence to support your answer.

Cause: When a large star explodes, it's called a supernova. The star's material becomes crushed and very dense. Effect: A black hole forms with a gravitational pull strong enough to keep even light from escaping.

B. Work with a partner. Read the passage aloud. Pay attention to accuracy. Stop after one minute. Fill out the chart.

	Words Read	_	Number of Errors	=	Words Correct Score
First Read		_		=	
Second Read		_		=	

White light from Light the sun_bends Colors 🖊

How Rainbows Work

Have you ever used a prism? Drops of water in the air can act like prisms. Light passes into a raindrop. Then all the colors that make up white light separate. Some of the colors are reflected (ree•FLEC•ted), or bounced back. by the other side of the raindrop. The colors spread out at different angles, so only one color from each raindrop reaches your eye.

Light passes into many raindrops at the same time. This lets you see all of the colors of the rainbow.

Answer the questions about the text.

1. How do you know this text is expository text?

It tells facts about rainbows.

2. What text features are included in this piece of expository text?

diagram; boldface word; pronunciation

3. How does the diagram help you understand the text?

Possible response: It shows you what light does when it passes through a raindrop.

4. Which text feature helps you understand the text the most?

Possible response: The diagram helps the most because it shows what is happening in the text.

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Read each passage below. Underline the context clues that help you understand the meaning of each word in bold. Then write the definition for each word on the line. Possible responses provided.

1. Stars are made of a mixture of plasmas like hydrogen. As you can imagine, a star's **core** is extremely hot. When lots of pressure squeezes the star's hot center, the hydrogen changes into helium.

the central part

2. When you look up at the stars, you may think that most of them produce a white light. Take another look. Stars generally lie on a color **spectrum**. This range of colors goes from red to yellow to blue.

range of colors

3. The sun does a huge job for a star its size. It provides Earth with most of the energy it needs to support life. Without the sun, Earth would be just a **barren** rock floating in space! None of the life now on Earth's surface could exist.

lifeless

4. A large star ends in a big explosion. When a star does this, it is called a **supernova**. After the explosion, all of the star's material gets crushed and stops shining.

star explosion

5. In a black hole, the crushed material becomes so dense that it develops a **gravitational** pull strong enough to keep even light from escaping.

pull or force of gravity

Name	9	

A. Read each sentence. Circle the word with the same vowel sound found in boy or cow. Then write the letters that make the vowel sound on the line.

- oi 1. The voices in the hall would make it hard to study for the test.
- **OW** 2. The tree will(tower) over the plants once it begins to grow.
- oy 3. I must carefully pack for the long voyage ahead of me.
- ou 4. There were over two thousand people at the show last night.
- **5.** The students were howling with laughter at my comedy act.
- **6.** The icy snow was beginning to annoy the birds in the tree.

B. Read the definitions below. Then read each word and circle the Greek or Latin root. Write the meaning of the root on the line.

The Greek root *graph* means "write." The Latin root spec means "look." The Latin root aqua means "water."

sound 1. megaphone

The Greek root phon means "sound."

- look 2. speculate
- water 3. (aqua)marine
- write 4. geography
- look 5. inspection
- write 6. homograph

Evidence is details and examples from a text that support a writer's ideas. The student who wrote the paragraph below cited evidence that shows how the author used headings to tell the reader what each section will be about. **Topic** In "Stars: Lights in the Night Sky," the author uses sentence headings to indicate what each section of the text will be about. For example, the first heading in the text is → "What's a Star?" The heading lets the reader know **Evidence** that this text will give information that explains what a star is. The second heading is "The Sun." This lets the reader know that this section will be about the sun. The Concluding → author's use of headings helps the reader to know what statement to expect in each section of text.

Write a paragraph about the text you have chosen. Show how the author uses precise words to link ideas. Cite evidence from the text. Remember to include a strong opening and a concluding statement and to use possessive pronouns correctly.

Write a topic sentence:

Cit	e evidence from the text: Answers will vary but should include a topic
	sentence, evidence from the text, and a concluding statement. Details
	and examples from the text should support the writer's analysis of how
	the author used headings to organize the text. Answers should include
	a strong opening, a concluding statement, and the correct use of
	possessive pronouns.

Name .		
INGILIE .		

A. Read the draft model. Use the questions that follow the draft to help you think about using figurative language to help the reader visualize the text.

Draft Model

The night sky is dark. The stars twinkle high in the sky. Sometimes there are clouds in the sky. The stars are reflected in rivers and lakes.

- 1. What figurative language could be added to describe the night sky?
- 2. What figurative language could be used to describe the clouds?
- 3. What other figurative language could be used to help readers visualize the scene?
- B. Now revise the draft by adding figurative language to help readers visualize the night sky.

mples of figurative language