

Over Bridge, Under Tunnel

by Lloyd Frank

- 1 Mountains, lakes, and rivers can get in the way of people traveling from one place to another. There are structures that help people pass such obstacles. Bridges and tunnels help people overcome such barriers.
- 2 Bridges and tunnels are different in design and placement. A bridge is built over a body of water, a highway, or a railroad track. A tunnel, in contrast, is a passageway under the ground, under a body of water, or through a mountain. Bridges vary in shape and are often placed above ground or water. Some are even famous. The Golden Gate Bridge is one of the most renowned bridges in the world. This celebrated structure crosses over the entrance to San Francisco Bay and connects San Francisco to northern California. The Golden Gate is known for its length and height. But it is best known for its beauty. People come from all over the world not just to cross the Golden Gate but simply to look at it.
- 3 Of course, not even the world's most famous tunnel gets many visitors who just want to look. It's hard to get a good view of a subterranean passage. But since the Channel Tunnel opened in 1994, it has transported millions of people. The Channel Tunnel, or "Chunnel," runs beneath the English Channel and connects France and England. The Chunnel is a rail tunnel. The only automobiles that cross it are carried on special railway cars. The Chunnel is not the longest tunnel in the world, but it is one of the few tunnels that connects two countries.

Close Reader Habits

How can context clues help you? **Circle** words that are unfamiliar. Reread the article. **Underline** clues that help you figure out the meaning of the words.



Synonyms are context clues with meanings that are almost like the unfamiliar words. Antonyms are context clues with meanings that are opposite to the unfamiliar words.

► **Think** Use what you learned from reading the science article to respond to the following questions.

- 1 What is the meaning of obstacles as it is used in paragraph 1 of the text?
- A things made below or above ground
 - B things that slow or stop movement
 - C things that help people travel
 - D things built through mountains or over water

- 2 Underline **four** context clues in paragraph 2 that **best** help you understand the meaning of the word renowned.

A bridge is built over a body of water, a highway, or a railroad track. . . . Bridges vary in shape and are often placed above ground or water. Some are even famous. The Golden Gate Bridge is one of the most renowned bridges in the world. This celebrated structure crosses over the entrance to San Francisco Bay and connects San Francisco to northern California. The Golden Gate is known for its length and height. But it is best known for its beauty.

► **Talk**

- 3 Discuss the meaning of the word subterranean as it is used in this sentence from paragraph 3:

It is hard to get a good view of a subterranean passage.

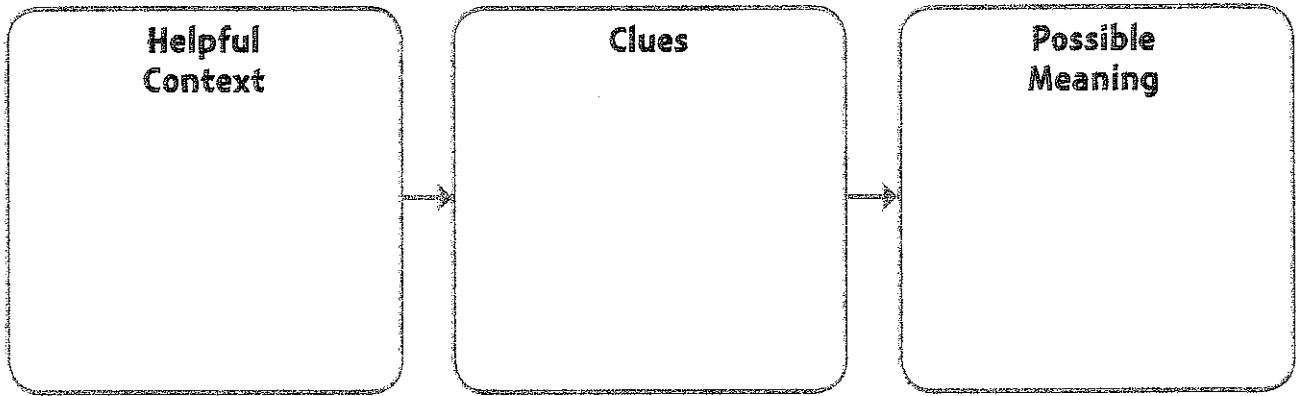
HINT Use a chart to organize your thoughts about context clues.

►  **Write**

- 4 **Short Response** Write a definition of the word subterranean. Identify the context clues you found. Describe the strategy you used to figure out the meaning of the word. Use details from the text to support your response. Use the space provided on page 209 to write your answer.

over Bridge, Under Tunnel

3 Use the chart below to organize your ideas.



Write Use the space below to write your answer to the question on page 207.

4 Short Response Write a definition of the word subterranean. Identify the context clues you found. Describe the strategy you used to figure out the meaning of the word. Use details from the text to support your response.

WORDS TO KNOW

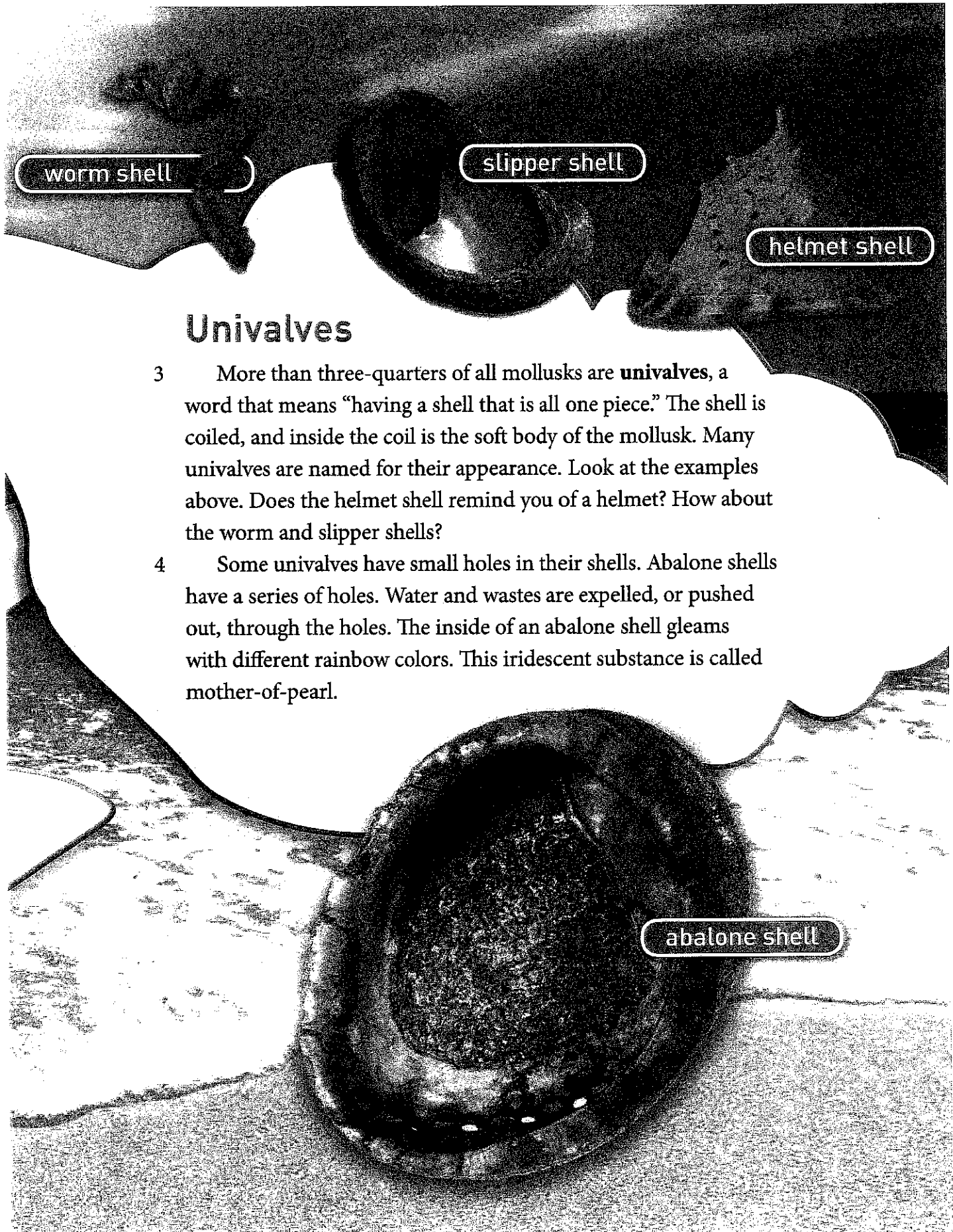
As you read, look inside, around, and beyond these words to figure out what they mean.

- **series**
- **hinged**
- **foreign**

Seashells

by Bela Moté

- 1 If you walk along the seashore, you will probably see many kinds of shells. Seashells were once the homes of live animals. The animals that live inside shells have soft bodies, so they need their shells to protect them from harm. Their shells save them from storms or predators such as starfish, birds, and otters. Shells also give the animals a shape. In that way, shells are like skeletons on the outside of the body. When the animals die, the shells remain.
- 2 Creatures with shells belong to a group of animals called **mollusks**. Not all mollusks have shells. Of the mollusks that do have shells, there are two main groups.



worm shell

slipper shell

helmet shell

Univalves

- 3 More than three-quarters of all mollusks are **univalves**, a word that means “having a shell that is all one piece.” The shell is coiled, and inside the coil is the soft body of the mollusk. Many univalves are named for their appearance. Look at the examples above. Does the helmet shell remind you of a helmet? How about the worm and slipper shells?
- 4 Some univalves have small holes in their shells. Abalone shells have a series of holes. Water and wastes are expelled, or pushed out, through the holes. The inside of an abalone shell gleams with different rainbow colors. This iridescent substance is called mother-of-pearl.

abalone shell

Bivalves

5 After univalves, **bivalves** are the next largest group of mollusks. When a bivalve is alive, the two parts of its shell are hinged. After the animal dies, you may find just one part of the shell lying on the beach.

kitten's paw shell

6 Many bivalves have names that reflect their appearance. A jackknife is a knife that folds into its own case. The jackknife clam has an appropriate name because it has about the same shape as a closed jackknife. Are angel wing and kitten's paw fitting names for the shells shown here?

angel wing shell


7 There are many different kinds of clams, from very small to very large. The giant clam is the largest bivalve. Some are four feet long and weigh 500 pounds. The giant clam even grows its own food. Tiny plants get caught in the clam. The plants get what they need from the clam, but eventually the clam eats the plants.

giant oyster shell

8 Another common bivalve is the oyster. All oysters can make pearls, but the pearl oyster makes the most beautiful ones. A pearl is an accident. A grain of sand or something else gets inside the oyster shell. An oyster is creating new shell material all the time. To protect itself from the foreign body, the oyster covers it with the same material that the oyster's shell is made of. The result is a pearl.

jackknife shell

pearl oyster shell

 **Think** Use what you learned from reading the science text to respond to the following questions.

1 Read the sentence from paragraph 1 in the passage.

Their shells save them from storms or predators such as starfish, birds, and otters.

What does the author suggest to the reader by using the word predators? Pick **two** choices.

- A** Predators can harm some animals.
- B** Predators need to find shelter from storms.
- C** An animal's shell helps protect it.
- D** All predators have skeletons.
- E** When the animal dies, the shell remains.

2 This question has two parts. First, answer Part A. Then answer Part B.

Part A

What is the meaning of the word iridescent as it is used in paragraph 4?

- A** not letting light through
- B** easy to notice or understand
- C** shining with many varying colors
- D** a small amount of something

Part B

Which phrase from the passage helps the reader understand the meaning of iridescent?

- A** "next largest group of mollusks"
- B** "have small holes in their shells"
- C** "the inside of an abalone shell"
- D** "gleams with different rainbow colors"

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

Part A

What is the meaning of the word bivalve as it is used in paragraph 5?

- A** having a hard outer shell
- B** having a shell with two pieces
- C** having a soft outer shell
- D** having a shell that is all one piece

Part B

Underline the **two** phrases in paragraph 5 that **best** support your answer in Part A.

After univalves, **bivalves** are the next largest group of mollusks. When a bivalve is alive, the two parts of its shell are hinged. After the animal dies, you may find just one part of the shell lying on the beach.

- 4** Read the sentence from the passage.

The jackknife clam has an appropriate name because it has about the same shape as a closed jackknife.

What does the author tell the reader by using the word appropriate?

Pick **two** choices.

- A** Bivalves are the largest group of mollusks.
- B** Jackknife describes the shape of the clam.
- C** An angel wing is a good name for the clam.
- D** Jackknife is a good name for the clam.
- E** The clam looks like an open jackknife.
- F** A jackknife folds into its own case.

 Write

5 Short Response What does the author tell the reader by using the underlined word in the sentence below from paragraph 8? How do the details in the paragraph further develop this idea? Include **one** or more context clues from the text to support your response.

A pearl is an accident.

 Learning Target

In this lesson, you learned to use context clues to figure out the meaning of unfamiliar words or phrases. Explain how using context clues deepened your understanding of the text.
