

Lesson 17

Connecting Words and Pictures in Informational Text



Learning Target

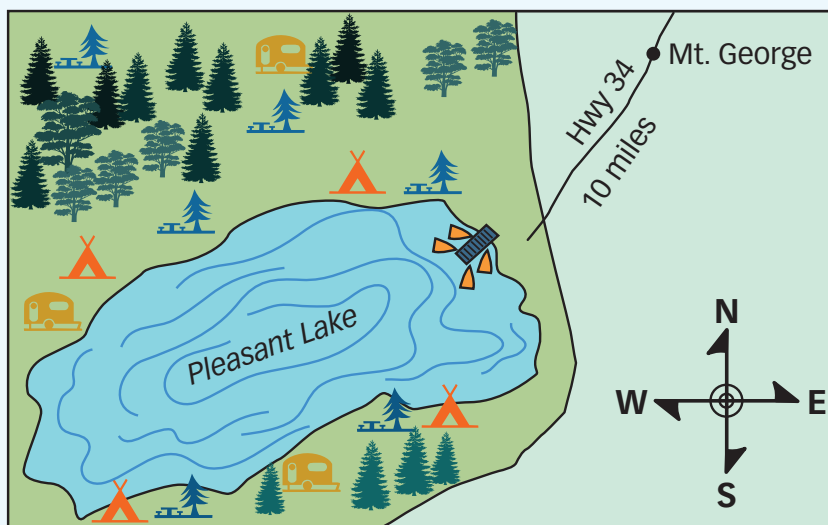


Using information from both the pictures and the words in a text will help you understand what you read.

- **Read** Texts use words and **illustrations**, or pictures, to provide information in a passage. Illustrations can also include photographs or **maps**. Maps are drawings that show the cities, roads, rivers, and other details of an area.

By thinking about both the words and the pictures, you will better understand what you are reading. You can use the information from both the words and the pictures to tell what you've learned.

Look at this page. It is from a booklet about campgrounds at Pleasant Lake. What do you learn from both the words and the map?



At Pleasant Lake you can enjoy boating, fishing, water skiing, and swimming. The lake is located 15 minutes from Mt. George. Campsites are available. **Call 111-1212 now!**

- **Think** Look again at the page from the booklet. Complete this chart to show what you learn from both the words and the map.

What the Words Tell	What the Map Shows
<ul style="list-style-type: none"> • what you can do at Pleasant Lake 	

- **Talk** What do you learn from the words that was not on the map?
What details did you learn from the map that were not in the words?



Academic Talk

Use these words to talk about the text.

- illustrations
- maps



The Invention That Dogs Are **BARKING** About

- 1 Do you know what your dog is saying when it barks? Now you can find out. A toy company in Japan has invented a tool that can tell you! One part of the device “listens” to the dog’s bark. Then it sends the information to the owner’s handheld speaker. The speaker plays a message telling how your dog is feeling. It can show six different feelings, including joy, sadness, excitement, and fear.
- 2 The gadget comes with some “extras,” too. For example, it has dog-training tips and a health checklist. It also has a “Bow Wow Diary.” It can even record barks when the dog is home alone!

Close Reader Habits

Underline sentences that describe the two parts of the device. Then **circle** the two parts of the device in the photo.

Explore

How do the words and the photograph help you understand how the device works?



Illustrations can help you understand the words in the article. Combine information from both as you read.

Think

- 1 Complete the chart with details from the words and the photo.

What the Words Tell	What the Photograph Shows

Talk

- 2 Paragraph 2 says that the device comes with “extras.” What extras does this device come with? Tell which of these you think dog owners would find most useful, and why.

Write

- 3 **Short Response** Use the photo to describe what the handheld piece looks like and what you think each part does. Use the space provided on page 288 to write your answer.

HINT Reread the words to help you understand what you are seeing in the photo.

The Amazing Canal

by Dell Sutcliff

- 1 The canal is one of the greatest inventions the world has ever known. A canal is a passage that uses water. It creates a shortcut allowing boats to travel through a land area. Without the canal, boats would have to travel around huge areas of land. Some of the oldest canals were built in Egypt nearly 4,000 years ago.
- 2 The Panama Canal is one of the most famous modern canals. It was completed in 1914. The canal stretches 51 miles across the Isthmus of Panama. It connects the Atlantic and Pacific Oceans. Before the canal was built, ships had to go around the tip of South America. The canal made the trip much shorter, faster, and safer.



Close Reader Habits

Underline key details in the article that tell why canals are important. On the map, **circle** the number of miles for each of the routes from New York City to San Francisco.

Think

- 1 According to the map and the text of the passage, what does the Panama Canal connect?
 - A Atlantic Ocean and Pacific Ocean
 - B North America and South America
 - C Egypt and the United States
 - D New York City and the tip of South America

- 2 Based on the map and the text, what did you learn about canals?
 - A After the Panama Canal was built, most people still traveled around the tip of South America.
 - B The Panama Canal created a shorter but more dangerous route.
 - C Canals help people and goods get from one place to another more easily.
 - D Portions of canals stretch across large bodies of water.



Read the title and labels on a map to understand what information it shows.

Talk

- 3 Why are canals such a great invention? Find details in the text and map that help you understand this. Talk about your ideas with your partner.

HINT Look at the map for details that support the text.

Write

- 4 **Short Response** The author says that the canal is one of the greatest inventions the world has known. Write a paragraph telling why the author may have said this. Use one detail from the text and one detail from the map to support your answer. Use the space provided on page 289 to write your answer.



Write Use the space below to write your answer to the question on page 285.



- 3 Short Response** Use the photo to describe what the handheld piece looks like and what you think each part does.

HINT Reread the words to help you understand what you are seeing in the photo.



Don't forget to check your writing.



Write Use the space below to write your answer to the question on page 287.

The Amazing Canal

- 4 Short Response** The author says that the canal is one of the greatest inventions the world has known. Write a paragraph telling why the author may have said this. Use one detail from the text and one detail from the map to support your answer.

Check Your Writing

- ☐ Did you read the prompt carefully?
- ☐ Did you put the prompt in your own words?
- ☐ Did you use the best evidence from the text to support your ideas?
- ☐ Are your ideas clearly organized?
- ☐ Did you write in clear and complete sentences?
- ☐ Did you check your spelling and punctuation?



WORDS TO KNOW

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

- burs
- fibers
- fabric

Riiip!

Thanks, George!

by Hannah Ford



- 1 Riiip! That familiar sound is what we might hear when we undo our shoes or open our backpacks. It's Velcro™! One side is fuzzy. The other side is prickly. It sort of feels like . . . a prickly plant? Well, that's because a prickly plant was the inspiration for Velcro.
- 2 George Mestral, the man who invented Velcro, lived in a country in Europe called Switzerland. One day, he was hiking in the Jura Mountains near his home. When he came home, he found lots of sticky burs on his pants and socks. *What makes these stick?* he wondered. He decided to look at them under a microscope.

3 Close up, George saw that each little spike on the bur ended in a hook. When he looked at the fibers of his pants and socks, he noticed they were little loops. The hooks from the burs got caught on the little loops. That got George thinking. *These things have real sticking power. Imagine if they could stick things together in a useful way!*


4 After many years of experimenting, George was able to re-create the sticking power of the little burs. He made two pieces of fabric: one piece that was covered in prickly hooks, the other covered in soft, fuzzy loops. Put them together and they hung on tight! With a hearty tug, riiip! They came apart!

5 George was eager to share his invention. A lot of people told him it was silly. George knew better. He knew that his invention could take the place of many fasteners. Zippers, buttons, pins, and shoelaces would all become a thing of the past, he claimed. In 1951, he patented his invention. He named it “Velcro,” a combination of the words *velour* (“velvet”) and *crochet* (“hook”). He began manufacturing it, sure that it would have thousands of uses. He was right.

6 Velcro’s first big fan was NASA. Astronauts had lots of bulky equipment to put on and take off. Velcro proved to be a strong, easy-to-pull-off fastener for space suits. It could hold tools in place so they wouldn’t float away. Skiers also wore bulky suits. They liked how Velcro fasteners held tight and opened easily. Sneaker makers saw Velcro straps as kid-friendly. Even toddlers could fasten and unfasten their straps!

7 From something most people find annoying, George Mestral gave us a wonderful convenience. The next time you hear that riiip, thank him!



 **Think** Use what you learned from reading the selection to respond to these questions.

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

Part A

How did George Mestral come up with the idea for Velcro?

- A** He looked at the unusual fasteners used on hiking clothes.
- B** He saw special fabrics that were fuzzy on one side and prickly on the other.
- C** He had been asked to invent a new kind of fastener.
- D** He noticed that burs were sticking to his pants and socks after a hike.

Part B

Which sentence from the passage **best** supports your answer to Part A?

- A** "Close up, George saw that each little spike on the bur ended in a hook."
- B** "After many years of experimenting, George was able to re-create the sticking power of the little burs."
- C** "He named it 'Velcro,' a combination of the words *velour* ('velvet') and *crochet* ('hook')."
- D** "Even toddlers could fasten and unfasten their straps!"

- 2** According to both the photographs and the text of the passage, how is a bur similar to Velcro?

- A** Both grow on a plant.
- B** Both are brownish in color.
- C** Both have tiny hooks on the ends.
- D** Both are shaped like tiny zippers.

3 Reread paragraph 4 and look again at the photographs. Which **two** of the following details explain how Velcro is made?

- A** It is made with spikes and hooks pulled from burs.
- B** It uses two different pieces of fabric.
- C** It uses the same fibers that socks are made from.
- D** It has prickly hooks on one side and loops on the other.
- E** It is made from velvet.
- F** It has special fasteners that act like laces.
- G** It uses hooks called “crochets.”

4 What is one reason that astronauts first started to use Velcro?

- A** It held tools in place so they wouldn't float away.
- B** It allowed astronauts to wear sneakers.
- C** It allowed astronauts to walk inside a spaceship.
- D** It helped astronauts walk safely on the moon.

5 Why was Velcro popular with skiers?

- 6** Read these sentences from paragraph 5.

He knew that his invention could take the place of many fasteners. Zippers, buttons, pins, and shoelaces would all become a thing of the past, he claimed.

What are **two** ways to figure out the meaning of *fasteners*?

- A** Use the meaning of *invention*, which means something similar.
- B** Use the examples in the next sentence, which are all objects used to join things together.
- C** Think about the meaning of *fasten*, which means “to hold in place.”
- D** Think about the meaning of *fast*, which means “quick.”
- E** Break the word *fasteners* down into two smaller words.

- 7** Why would Velcro be **most** useful on clothing meant for children?

- A** Children usually wear bulky clothing.
- B** Velcro makes a ripping sound that children enjoy.
- C** Velcro straps are easy to fasten and unfasten.
- D** It can be used to hold caps and gloves in place.

- 8** Which sentence does the photograph of the astronaut on page 291 help you understand?

- A** “He knew that his invention could take the place of many fasteners.”
- B** “Velcro’s first big fan was NASA.”
- C** “It could hold tools in place so they wouldn’t float away.”
- D** “Astronauts had lots of bulky equipment to put on and take off.”



- 9 Short Response** Write a paragraph explaining how Velcro works. Use details from both the text and the photographs in your answer.



Learning Target

Now that you've read articles that contain text and pictures, explain how both are important to understanding a topic.
