



Name \_\_\_\_\_ Date \_\_\_\_\_

## THE POLAR REGIONS

The polar regions are the coldest places on the Earth. The temperatures there have gotten as low as  $-126$  degrees Fahrenheit. The sea is covered with a thick layer of ice. Days are very long in the polar regions. The sun doesn't set during three to four of the summer months. Though there is a lot of sun, it doesn't provide very much warmth. It doesn't rain very often, either, but there is snow on the ground.

The living conditions in the polar regions are extreme. Plants cannot grow, but there are some animals that are able to survive. Some of these animals are the seal, walrus, polar bear, wolf, caribou, whale, and the arctic fox. These animals have adapted to this climate. For example, the polar bear has a thick layer of fat under its fur coat. This helps keep it warm.

Along the outer edges of the polar region and the ice caps, the ground is frozen solid. In the warmer months, mosses and other plants can grow there. Reindeer live along the edges and eat some of the plants that grow on the outer edges. People who once lived in these frozen climates used reindeer. Today, most of these people live in cities and towns instead of on the frozen countryside.

### STORY QUESTIONS

1. How are reindeer able to live along the outer edges of the ice caps?
  - a. The snow has melted off the ice caps.
  - b. The reindeer eat the moss and other plants that grow past the ice caps.
  - c. The people from long ago brought the reindeer to this region.
  - d. The reindeer feed on the animals that live in the polar regions.
2. What is the purpose of the second paragraph?
  - a. to explain how the polar regions were developed
  - b. to explain how the animals in this area survive
  - c. to explain how people in the past lived in the polar regions
  - d. to explain where the plants grow in the polar regions
3. Where in the passage would you read to find out about the temperatures in the polar regions?
  - a. first paragraph
  - b. end of the third paragraph
  - c. second paragraph
  - d. end of the second paragraph
4. What is the meaning of the word *adapted* as used in this passage?
  - a. arranged
  - b. distinct
  - c. modified
  - d. opposite



Name \_\_\_\_\_

Date \_\_\_\_\_

## THE TELESCOPE

Since the beginning of time, man has been trying to look beyond what the human eye can see. Hans Lippershey, a man from the Netherlands, invented the telescope in 1608. The Dutch government tried to keep the invention a secret, but it didn't work out that way. Galileo heard about it and built his own, more powerful telescope in 1609. A telescope uses a magnifying lens to focus light coming from things at a great distance. Today, astronomers still use telescopes to look at distant stars, planets, and other wonders in space.

There are two main types of telescopes. The first type is called the refracting telescope. This telescope helps you see things at a relatively short distance. This type of telescope is used at tourist sights to help you see scenic views. They were also used in the past by sea captains to help them find their way at sea. A refracting telescope has two lenses at either end of the tube. The largest lens is at the far end of the telescope. Light shines through to the smaller lens, which is called the eyepiece. The image is magnified. The image in a simple refracting telescope is upside down.

The other type of telescope is the reflecting telescope. Reflecting telescopes use mirrors instead of lenses. The mirrors focus the light onto the eyepiece. The reflecting telescope is much more expensive. Some of the bigger reflecting telescopes are made using large mirrors. Oftentimes, they are set high up on mountains so that they will be above the clouds and can give people a clear view.

### STORY QUESTIONS

1. What does the word *relatively* mean as used in the passage?
  - a. extraordinary
  - b. rather
  - c. inhibited
  - d. progressive
2. What is the main idea of this reading passage?
  - a. to inform the reader about the early telescopes that were used in ancient times
  - b. to inform the reader about how a telescope is operated
  - c. to explain the difference between the two different types of telescopes
  - d. to explain the life of Galileo and his inventions
3. Which of the following statements is not true regarding refracting and reflecting telescopes?
  - a. The reflecting telescope is used to see things far away.
  - b. The refracting telescope shows the image upside down.
  - c. The refracting telescope uses lenses while a reflecting telescope uses mirrors.
  - d. Galileo invented the telescope.



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## WAVES

How many times have you sat on a beach and looked at the ocean? It is an amazing sight. The waves are fun to splash in, but have you ever wondered what causes waves and how they work? Waves can be gentle and lapping, or they can be rolling and crash onto the shore. What makes the difference?

When you are sitting on the beach, it looks like the waves are rushing right at you. But that is really not the case. The water in a wave is actually rising up out of the water and then coming back down. It usually comes back down in the same or very similar position.

Out at sea, a wave can travel a great distance. Waves can move large ships and other large objects. But once a wave gets closer to the shore, it does not have as much power. It begins to slow down and drag. The top part of the wave keeps going. When you see the cap on a wave, it means that the wave is “breaking” before it goes down under water again.

The wind is usually what causes surface waves. The wind can be blowing hard or it can be blowing softly. The more intense the wind is, the higher the wave will be. The wind pushes the water.

### STORY QUESTIONS

1. Which paragraph does not explain how waves work?
  - a. first paragraph
  - b. second paragraph
  - c. third paragraph
  - d. fourth paragraph
2. What is the author’s opinion about the ocean?
  - a. The author thinks the ocean needs to be cleaned up.
  - b. The author thinks there has not been enough research about how waves work.
  - c. The author is interested in sharing the wonders of animal life in the ocean.
  - d. The author thinks the ocean and the waves are amazing.
3. Which sentence expresses the author’s feelings about the ocean?
  - a. Out at sea, a wave can travel a great distance.
  - b. Waves can move large ships and other large objects.
  - c. It is an amazing sight.
  - d. The more intense the wind is, the higher the wave will be.