



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

## EARTH'S ATMOSPHERE

What do you know about Earth's atmosphere? Earth's atmosphere is a thin layer of gases that cover the outer edge of Earth. It is mostly made up of nitrogen and oxygen. There are other gases in the atmosphere as well. This layer of gases is very important. It protects Earth from extreme temperatures. The atmosphere also traps heated air. It protects Earth from the sun's ultraviolet rays. These rays can be very harmful.

The atmosphere is about 300 miles thick. It slowly becomes thinner the farther it is from Earth and fades off into space. There isn't a real defined boundary between the atmosphere and space.

Oxygen in the atmosphere is important. Oxygen allows us to breathe. Without oxygen in the air, we would not be able to live. Some of the oxygen has changed over time. This is called the ozone layer. Some experts believe that humans have caused a hole in ozone layer.

The atmosphere is divided into five layers. The weather we experience on Earth takes place in the first layer. Weather happens because the atmosphere is constantly moving and changing.

### STORY QUESTIONS

1. Where does the weather we experience on Earth take place?
  - a. in the atmosphere
  - b. in the first layer of the atmosphere
  - c. in the second layer of the atmosphere
  - d. in the ozone layer
2. Which paragraph helps you answer the previous question?
  - a. second paragraph
  - b. first paragraph
  - c. fourth paragraph
  - d. third paragraph
3. Without the atmosphere, what would happen to Earth?
  - a. It could not withstand the sun's ultraviolet rays.
  - b. There would be no weather patterns.
  - c. There would be less pollution.
  - d. The ozone layer would not have a hole in it.



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## EARTHQUAKES

Have you ever been in an earthquake? How did it feel? An earthquake can be a scary experience. What is an earthquake? An earthquake is really Earth's way of getting rid of stress. The earth has plates that shift back and forth. This stress and strain causes the surface of the earth to crack. It is like pushing against the two ends of a stick. The stick will eventually bend and break from the pressure. The earth's crust reacts the same way. As the plates move, they put pressure on each other. When the force is strong enough, the crust breaks. The stress is released as energy that moves through the earth in the form of waves. These waves are what we call earthquakes.

Did you know that there are different types of earthquakes? They are called tectonic, volcanic, and explosion earthquakes. A tectonic earthquake is the most common. These happen when the rocks on Earth's crust break because of the tectonic plates shifting. A volcanic earthquake takes place during the eruption of a volcano. Explosion earthquakes happen when there has been a chemical or nuclear detonation. These earthquakes take place in underground mines.

Earthquakes can be measured in many ways. One of the ways is to measure how intense an earthquake is. Magnitude is another way to measure an earthquake. The Richter scale is used to measure the magnitude. Seismic measurement is measured by using seismic waves.

### STORY QUESTIONS

1. Why are earthquakes likened to waves?
  - a. Earthquakes begin out in the ocean.
  - b. The waves of the ocean cause the earthquakes.
  - c. The force of energy released when the crust breaks is called a wave.
  - d. Nuclear chemicals form a wave.
2. What is the purpose of the third paragraph?
  - a. to explain how earthquakes are measured
  - b. to explain how earthquakes are formed
  - c. to explain how earthquakes are prevented
  - d. to explain how earthquakes are survived
3. Where would you read to find out about the three types of earthquakes?
  - a. first paragraph
  - b. end of the third paragraph
  - c. second paragraph
  - d. end of the second paragraph



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## AMPHIBIANS

What is an amphibian? An amphibian is an animal that spends part of its life underwater and part on land. When amphibians are underwater, they breathe with gills. When they are on land, they breathe with lungs. They are cold-blooded. This means that their body temperature changes depending on the temperature around them.

There are three different kinds of amphibians. The first group is newts and salamanders. These animals are about three inches long. They have four legs and four “fingers” on each leg. They are red-orange and transform to the color green.

The second type is frogs and toads. Frogs and toads are very similar. Toads have a warty back and spend less time in the water. They eat insects and other small animals. Frogs begin as tadpoles. They spend time close to the water so that they can lay their eggs.

The last group is caecilians. These are worm-like creatures. Millions of years ago, there were other types of amphibians, but they are now extinct.

### STORY QUESTIONS

1. How is an amphibian different than most mammals?
  - a. An amphibian eats different foods.
  - b. An amphibian breathes underwater with gills.
  - c. The amphibian is very territorial.
  - d. An amphibian can swim.
2. Why is the word *fingers* in quotation marks in the passage?
  - a. The author isn't sure it is the right word to use.
  - b. The author is using it to show that they look and work like fingers.
  - c. They don't become fingers until later.
  - d. The author is unsure of what to call these things.
3. What are the similarities between a frog and a toad?
 

a. They both eat insects and other small animals.	c. They are both worm-like creatures.
b. They are both endangered species.	d. They both have tadpoles.
4. What does the passage say about some amphibians millions of years ago?
  - a. There is not enough information about them.
  - b. There are new species being discovered every day.
  - c. They are now extinct.