

## Water, Water Everywhere

Cross-Curricular Focus: Earth Science



Water is probably Earth's most precious resource. After all, we can't live without it. Earth is the only known planet to have water. Our entire planet is covered in water, with little pieces of land called continents here and there. Our oceans are not the only places we have water. It is also present under the ground and as vapor in the air. Clouds formed by the vapor ensure that water falls back down to Earth as rain, sleet, snow or hail.

So with so much water all around us, why do we hear so much about the need to conserve water? It has to do with the water's salinity, or saltiness. Ocean water has too much salt in it for us to drink. Much of the water that falls back to Earth in one form or another becomes **runoff**. It travels some distance over land before making its way back to one of Earth's oceans. As it travels over land, the water picks up salts and minerals from the rocks and soil and washes them into the ocean. The deposits have built up over many years. That is why ocean water is so salty.

Approximately 97% of Earth's water is salt water. The process of **desalination**, or removing salt from water, is expensive. That leaves only about 3% that is freshwater for meeting the needs of people, plants and animals. This is why there is concern for protecting this rare and critical resource. Unfortunately, only about a third of our freshwater is even available for us to use. The rest is frozen solid in glaciers, in the snow on high mountaintops and in the polar ice caps. So the end result is that we have only about 1% of all the water on Earth that we can use.

The freshwater we use comes from surface water and **groundwater**. Surface water, just as it sounds, is water we can see in ponds, rivers, lakes and streams. Groundwater is water that seeps down into the ground and collects in the spaces between rocks and soil underground. You can find water just about anywhere on Earth if you dig far enough into the ground.

It is important to protect our water supplies from pollution. Once the water becomes polluted, it can be difficult or even impossible to clean. Chemicals, like cleaning supplies, paints and other toxins, can seep into the ground and make the water unusable. People must dispose of their waste products appropriately so we will have plenty of freshwater to go around.

Name \_\_\_\_\_

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) With so much water all around us, why is there so little water for us to use?

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2) What are the four forms that water takes when it returns to Earth from the clouds?

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3) What is the main idea of this passage?

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4) Where is groundwater found?

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5) What type of substance can seep into groundwater and make it unusable?

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