

**Earth: The Water Planet** ▪ *Section Summary*

## Water on Earth

### Guide for Reading

- How do people and other living things use water?
- How is Earth's water distributed?
- How does Earth's water move through the water cycle?

Earth is unique among the planets in the solar system because its surface is nearly covered with liquid water. The water on Earth is essential to life. **All living things need water in order to carry out their body processes. In addition, many living things use water for shelter.** One of the body processes that needs water is **photosynthesis**. This is the process by which plants use water, carbon dioxide, and energy from the sun to make their food. Animals and other living things depend on food made by plants. Bodies of water also provide many organisms with **habitats**, or places to live and obtain what is necessary to survive.

**Most of the Earth's water—roughly 97 percent—is found in salty oceans. Only 3 percent is fresh water.** The huge expanses of ice near the North and South Poles account for about three quarters of that 3 percent. The oceans—actually, a single world ocean—cover nearly 71 percent of Earth's surface. The fresh water that is available for humans to use includes the water in lakes and rivers. But far more fresh water is located underground. **Groundwater** is water that fills the cracks and spaces in underground soil and rock layers.

Water on Earth is naturally recycled through the **water cycle**. **Water moves from bodies of water, land, and living things on Earth's surface to the atmosphere and back to Earth's surface.** The sun is the source of energy that drives the water cycle.

The water cycle has no beginning or end. It includes evaporation, condensation, and precipitation. Large amounts of water continually evaporate from oceans and lakes. More water vapor is given off through the leaves of plants in a process called **transpiration**.

As warm air carries water vapor upward, the air cools. Cold air holds less water vapor than warm air, so the water condenses into droplets, which clump around dust particles and form clouds. As the droplets grow bigger and heavier, they fall back to Earth as rain, snow, sleet, or hail, also called **precipitation**.

Most precipitation falls directly into the oceans. Some water that falls on land evaporates immediately. Some runs off the surface into rivers, lakes, or oceans, or trickles down into the ground. The total amount of water on Earth has remained fairly constant for millions of years. In the world as a whole, the rates of evaporation and precipitation are balanced.