

Name: \_\_\_\_\_

# MOVING WATER

In “The Secret Lives of Plants” (p. 20), you learned about a system of fungi that helps trees and other plants absorb water from the soil. The movement of water through plants is part of the *hydrologic cycle*. Study the diagram below to learn about the processes that move water around Earth. Then answer the questions that follow.

## THE HYDROLOGIC CYCLE

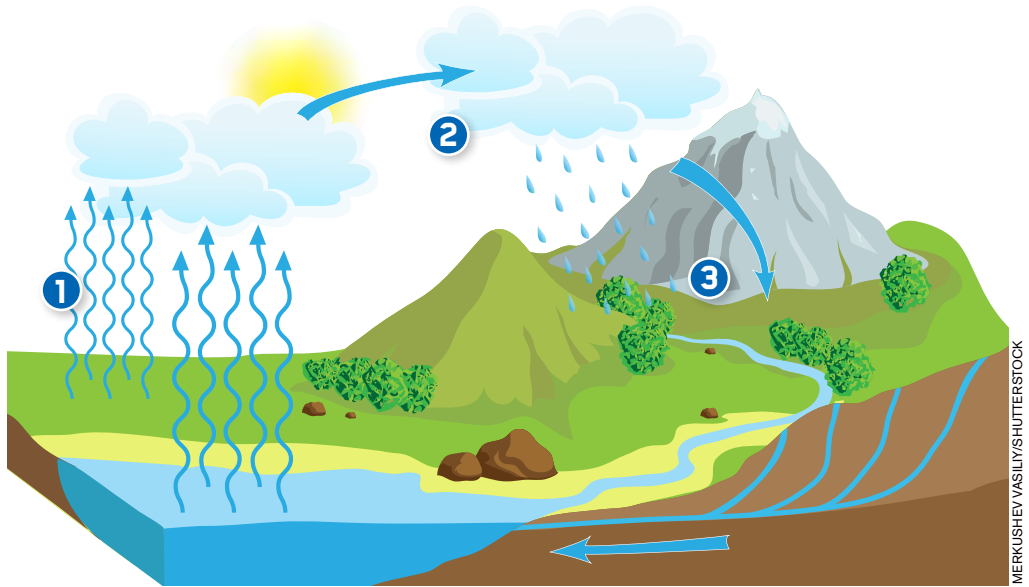
In the water cycle, water circulates from Earth to the atmosphere and back again.

### 1 EVAPORATION:

Water from Earth’s surface *evaporates*, or turns from a liquid into a gas, and enters the atmosphere. Roughly 85 percent of this water vapor comes from the oceans. The rest evaporates from land sources, including lakes and rivers, as well as plant *transpiration*, water evaporation through pores on a plant’s leaves. This transpiration helps pull water up from the soil into the plant.

### 2 CONDENSATION:

As air rises in the atmosphere, it cools. That causes water vapor in the air to *condense* (turn from a gas to a liquid) into clouds. They move around Earth, transporting water to different areas.



### 3 PRECIPITATION:

Eventually, water from clouds falls back to Earth as *precipitation*, such as rain or snow. The water can fall

directly back into waterways such as lakes or the oceans. It may soak into soil to be used by plants, or flow deep underground to become groundwater.

## QUESTIONS

1. What is the source of most of the water that enters the atmosphere?
2. Explain what causes clouds to form in the atmosphere.
3. Describe how the hydrologic cycle could cause water from a lake in the U.S. to end up in a lake in Europe.
4. How do plants help water move through the hydrologic cycle?
5. During a drought, how might even a shallow-rooted tree contribute evaporated water to the atmosphere? Cite a sentence from “The Secret Lives of Plants” to support your answer.