LESSON 10

evaporation **condensation** **surface water** **watershed** **aquifer**
humidity **precipitation** **runoff** **groundwater** **water table**

You can see water in rivers, streams, lakes, and oceans. Read this selection to learn how water moves around Earth.

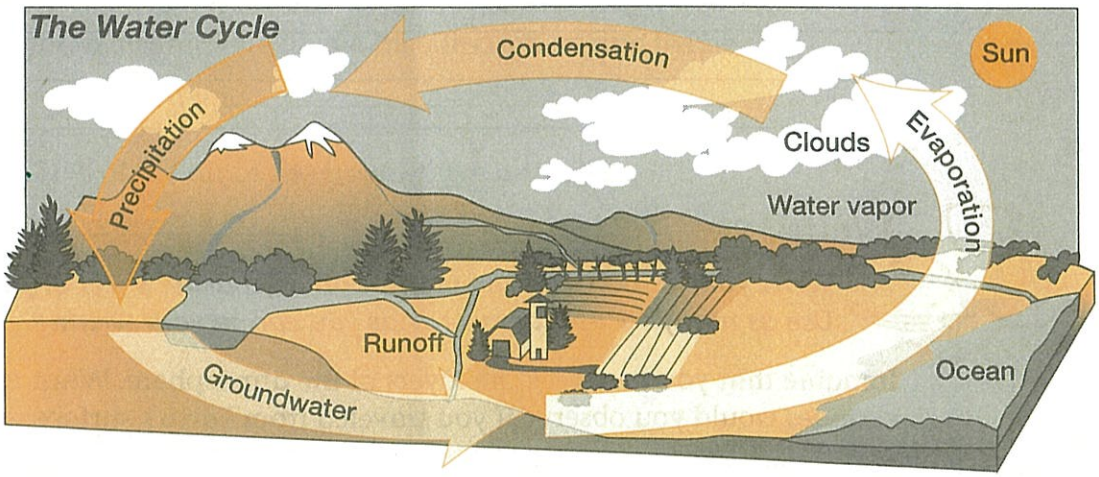
Earth's Water Systems

Water in the Air

Earth's water goes through a series of repeating steps called the water cycle. One step is **evaporation**, the changing from a liquid to a gas. Liquid water evaporates, forming water vapor, a gas. Evaporation requires heat. Most evaporation of water occurs when the sun heats the surface of the oceans. This is why **humidity**, or the amount of water vapor in the air, is high over the oceans.

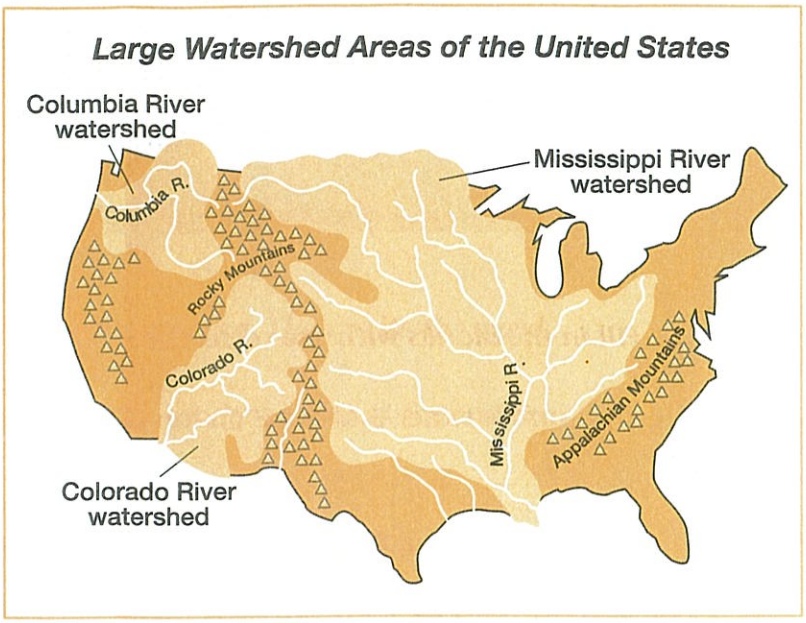
As the water vapor rises from Earth's surface, it cools and changes back to a liquid. The changing from a gas to a liquid is **condensation**. Condensation is another step in the water cycle.

Over time, tiny droplets of water in the air gather to form clouds. Wind may move these clouds over land. The droplets may become so heavy that they fall back to Earth as rain, snow, sleet, or hail. Water falling to Earth as a liquid or solid is **precipitation**. Precipitation is another step in the water cycle.



Water on the Ground

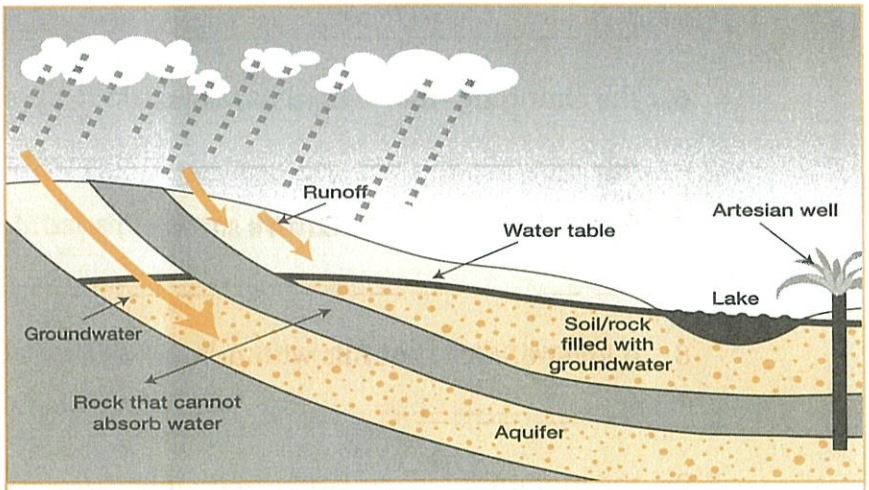
When precipitation reaches Earth's surface, it is called **surface water**. Most surface water is stored in oceans, lakes, rivers, and streams. Surface water that flows on top of the land is called **runoff**. Runoff collects in small streams that flow into a larger river. The area of land drained in this way is the river's **watershed**. The river water finally reaches the ocean, and the cycle continues.



Water Under the Ground

Precipitation may also sink into the ground. Water that is beneath Earth's surface is **groundwater**. Groundwater fills small spaces in soil. Also, some rocks have tiny spaces, or pores, that groundwater can fill. When a layer of rock with pores is sandwiched between rock that cannot absorb water, an aquifer forms. An **aquifer** is a layer of rock that fills with groundwater.

The height of groundwater under the ground is the **water table**. A high water table means that water is close to or at the surface, where it may form a pool or a lake. A low water table means that water is far below the surface. For example, a desert has a low water table.



The water table in an area may move higher or lower, depending on precipitation.

My Science Vocabulary

Go to page 97 to list other words you have learned about Earth's water systems.

evaporation	**condensation**	**surface water**	**watershed**	**aquifer**
humidity	**precipitation**	**runoff**	**groundwater**	**water table**

A. ***Fill in the blanks with the correct vocabulary word.***

1. surface water that flows on top of the land

   ___ ___ ___ ___ ___ ___

2. the changing from a gas to a liquid

   ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

3. the height of groundwater under the ground

   ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

4. the area of land drained by a river and the streams that flow into the river

   ___ ___ ___ ___ ___ ___ ___ ___ ___

5. rain, snow, sleet, or hail

   ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

6. the changing from a liquid to a gas

   ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

7. water that is beneath Earth's surface

   ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

8. a layer of rock that fills with groundwater

   ___ ___ ___ ___ ___ ___ ___

9. the amount of water vapor in the air

   ___ ___ ___ ___ ___ ___ ___ ___

10. water on Earth's surface

    ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

evaporation	**condensation**	**surface water**	**watershed**	**aquifer**
humidity	**precipitation**	**runoff**	**groundwater**	**water table**

B. ***Circle the word that makes sense in each sentence. Then write the word.***

1. Heat from the sun causes (evaporation, condensation) at the surface of the oceans. _____
2. A lake forms where the (water table, condensation) is high enough to reach the surface. _____
3. There is much higher (runoff, humidity) over oceans than over deserts. _____
4. Groundwater fills up pores in underground rock in an (evaporation, aquifer). _____
5. Rain falling to Earth is a form of (groundwater, precipitation). _____
6. When water vapor in the air cools, (watershed, condensation) occurs. _____
7. The area drained by the Mississippi River and its smaller streams is a huge (aquifer, watershed). _____
8. Where there is heavy rain and the land cannot absorb all the water, there will be much (runoff, groundwater). _____
9. An aquifer fills with (surface water, groundwater). _____
10. When precipitation reaches Earth's surface, the water is called (evaporation, surface water). _____

WORD ROOT

The word **aquifer** comes from the Latin **aqua**, which means "water."

evaporation	**condensation**	**surface water**	**watershed**	**aquifer**
humidity	**precipitation**	**runoff**	**groundwater**	**water table**

C. ***Write the vocabulary word that best completes each pair of sentences.***

1. Rain, sleet, hail, and snow are _____ .
   Water falling to Earth is _____ .
2. A layer of rock with pores fills with water and creates an _____ .
   An _____ is sandwiched between rock that cannot absorb water.
3. The height of groundwater is the _____ .
   In the desert, the _____ is low.
4. The process of _____ occurs when water vapor cools.
   The changing of water vapor to liquid water is _____ .
5. The amount of water vapor in the air is _____ .
   Over the oceans, the _____ of the air is high.
6. When precipitation reaches Earth's surface, the water is called
   _____ .
   Runoff is _____ that flows over land.
7. Water that sinks into the ground is _____ .
   Spaces in rocks and soil fill with _____ .
8. The changing from liquid water to water vapor is _____ .
   Heat from the sun causes the _____ of liquid water.
9. The land drained by a river and its streams is the river's _____ .
   A river and its streams collect runoff to form the river's _____ .
10. Water running on top of the land is _____ .
    Small streams carry _____ to a larger river.