

## The Water Cycle

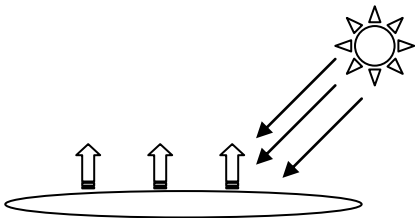
Have you ever looked up at the sky and wished you could touch one of the clouds? Believe it or not, you have probably been closer to a cloud than you think. If you have ever traveled through a blanket of fog covering the ground, you have moved through a cloud! Clouds are really nothing more than billions of tiny drops of water. When these drops collect in the sky, they form clouds. When they form close to the ground, they create fog. Any time moisture in the air forms tiny droplets of water that look like smoke or fog, a cloud is created. When you see your breath on a cold day, or steam over a boiling pot, you are seeing a tiny cloud!

Clouds come in a variety of shapes and sizes, but they are all made up of water. Whether they look like white cotton candy or gray, wispy feathers, all clouds begin the same way. They all start out as bodies of water on the surface of the Earth.

So, how does water on the ground turn into a cloud? And where do clouds go once they are formed? Scientists have already found the answers to these and other questions about clouds. They call the path water takes from the ground to the sky and back again the **Water Cycle**. They also know that this process is very important to help us sustain life on Earth.

### Step 1. Evaporation

Every hour of the day, the sun is shining on some part of the Earth. As it shines, it provides a lot of light and heat. This heat warms up the water on the ground of the Earth, turning it from liquid water to a gas or vapor. The vapor rises from the ground and rejoins the earth's atmosphere. This first step of the Water Cycle is called **evaporation**.



Evaporation takes place over every body of water, no matter what size. Water evaporates from lakes, ponds, streams, oceans, and puddles. If you dry yourself in the sun after swimming, the water from your skin is evaporating and rising into the sky. Imagine the water from your own body becoming part of a cloud!

### Step 2. Condensation

All over the world, water is heated until it becomes vapor and rises into the sky. Along with countless drops of water, our atmosphere is full of tiny particles. Some of these particles come from pollution, and others are simply dust. The water vapors collect around the particles and form larger droplets. This is the second step of the Water Cycle. It is called **condensation**. As more and more drops of water **condense** around particles, a cloud begins to form.



## The Water Cycle (Cont'd)

### Step 3. Precipitation

Clouds can not remain in the sky forever. As the size and number of water drops grow, the cloud becomes too heavy and must shed some of its weight. The water droplets begin to fall to the ground as rain. If the water drops freeze before reaching the ground, we get snow, sleet, or hail. Whether frozen like snow, or wet like rain, water falling from clouds is called **precipitation**. This is the third and final step of the water cycle.

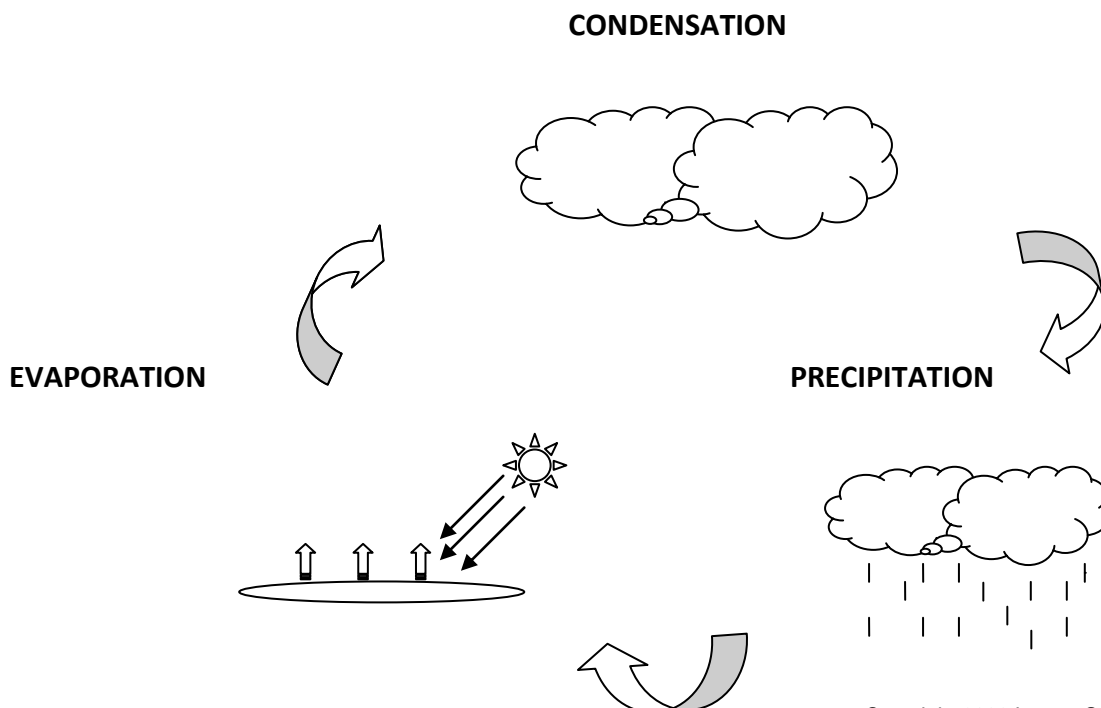


71% of the Earth is covered in water, so most of our precipitation returns directly to lakes, ponds, oceans, and streams. Some water lands on the ground and soaks into the earth. This water is called groundwater. Groundwater can make its way back to streams and rivers by filtering through rock and sand, or it can be used by trees and plants.

Once it is back under the heat of the sun, the water will evaporate. It begins its path to becoming a cloud once again!

### Summing Up

The plants and animals of the Earth need water to live. We live on a big planet, and we depend on the water cycle to get water everywhere it is needed. Without water evaporating, forming clouds through condensation, and falling to the ground as precipitation, we would have a lot of work to do. We would have to find a way to move water all over the world! Lucky for us, nature does the job for us.



Name \_\_\_\_\_

Date \_\_\_\_\_

## The Water Cycle Questions

Read the questions below and circle the letter of the correct answer.

1. What is the Water Cycle?
  - a. The process that water follows to reach the sea
  - b. The series of steps water takes to become a cloud and return to the ground
  - c. A tool scientists use to measure rainfall
  - d. The path ocean currents follow
  
2. Which of the following is NOT a step in the Water Cycle?
  - a. Precipitation
  - b. Evaporation
  - c. Condensation
  - d. Conservation
  
3. Where can evaporation occur?
  - a. Over lakes and streams
  - b. Over ponds and rivers
  - c. Over oceans and puddles
  - d. All of the above
  
4. In condensation, what does water vapor collect around to form a cloud?
  - a. Hail
  - b. Dust and other particles
  - c. Ice crystals
  - d. Drops of water
  
5. What is evaporation?
  - a. Water falling from clouds
  - b. Groundwater is absorbed by plants
  - c. Water heated by the sun becomes a gas and rises into the sky
  - d. Water vapor turns into drops of water in a cloud

In the space below, explain how clouds produce rain.

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Name \_\_\_\_\_

Date \_\_\_\_\_

### The Water Cycle Questions (Cont'd)

Label the steps of the Water Cycle.

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water falling from clouds in the form of rain, snow, hail, or sleet

\_\_\_\_\_

water vapor collects around particles in the atmosphere and forms droplets

\_\_\_\_\_

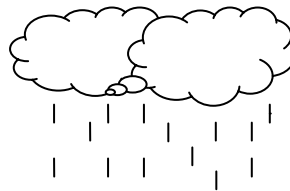
water heated by the sun turns into a gas and rises into the earth's atmosphere

Label these pictures of the Water Cycle Steps.

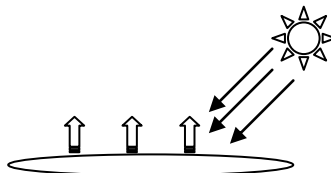
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Name \_\_\_\_\_

Date \_\_\_\_\_

## The Water Cycle Answers

### Multiple Choice

1. B
2. D
3. D
4. B
5. C

### Short Answer

(answers will vary)

Water vapor condenses around particles in the atmosphere, forming a cloud. As the cloud grows, it becomes too heavy and the water droplets begin to fall to the ground as rain.

### Identification

Precipitation  
Condensation  
Evaporation

### Picture Identification

Condensation  
Precipitation  
Evaporation