

# Science and Health

## WATER CYCLE



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## To the Learner

Water is everywhere. It is used, returned to the environment and used over and over again. Living things are made up of 10 percent water thus, water is a very important material to sustain life. This module will discuss about water, its importance and how the water cycle came about or happen.



## Let's Learn This

Identify the process involved in **water cycle**. Describe changes that happen to water during each process.



## Let's Try This

Encircle the letter that has the correct answer.

1. The sun heats up the water parts and transform water into gas or vapor. This process is called \_\_\_\_\_.
  - a. Evaporation
  - b. Condensation
  - c. Precipitation
  - d. Transformation
2. Evaporation is the changing of liquid into gas, what is condensation?
  - a. Transformation of gas into snow.
  - b. Transformation of vapor into liquid.
  - c. Transformation of solid into liquid.
  - d. Transformation of vapor into solid.

3. Rain, snow, and hail are forms of moisture that falls on the surface of the Earth from clouds. They are examples of \_\_\_\_\_.
  - a. Evaporation
  - b. Precipitation
  - c. Condensation
  - d. Transformation
4. What is needed by water to evaporate from the Earth's surface?
  - a. Sunlight
  - b. Clouds
  - c. Rain
  - d. Dew
5. \_\_\_\_\_ is the process of changing water into water vapor and back again into water with the aid of sunlight.
  - a. Heating Cycle
  - b. Rock Cycle
  - c. Water Cycle
  - d. Cooling Cycle



## Let's Do This

Teacher-aided activity.

Materials:

2 jars or transparent cups  
A glass of water and ice  
Marker/pentel pen  
Plastic sheet/Cellophane  
Damp cloth

Procedure:

☺ Divide the class into 3 groups. Each group will have an activity.

### A. Group 1:

- ☺ Fill the jars/transparent cups with equal amount of water.
- ☺ Label the cups A and B and cover it with cellophane or transparent sheet.
- ☺ Mark the water level using the marker. (Make sure the water level are the same.)
- ☺ Place the cup A outside where it can receive much heat and B in cool area.
- ☺ Keep both cups in their area for 1 hour and observe.

- 1.) Are there any changes you notice in cup A and B?
- 2.) What are the changes you noticed?
- 3.) Where do you think the water go?
- 4.) What do you think cause the changes in water level?

**B. Group 2:**

☺ Wipe your blackboard with a damp cloth. Observe after 10 minutes.

- 1.) What happens to the blackboard when you wipe the damp cloth?
- 2.) What happens to the wet board after 10 minutes? Why?
- 3.) What causes the wet board to dry up?

**C. Group 3:**

☺ Fill the glass with water and put the ice into the glass.

☺ Observe after 10 minutes.

- 1.) What did you see on the outside surface of the glass?
- 2.) Where do these drops of water come from?
- 3.) What do you think causes the drops of water to appear on the surface of the glass.

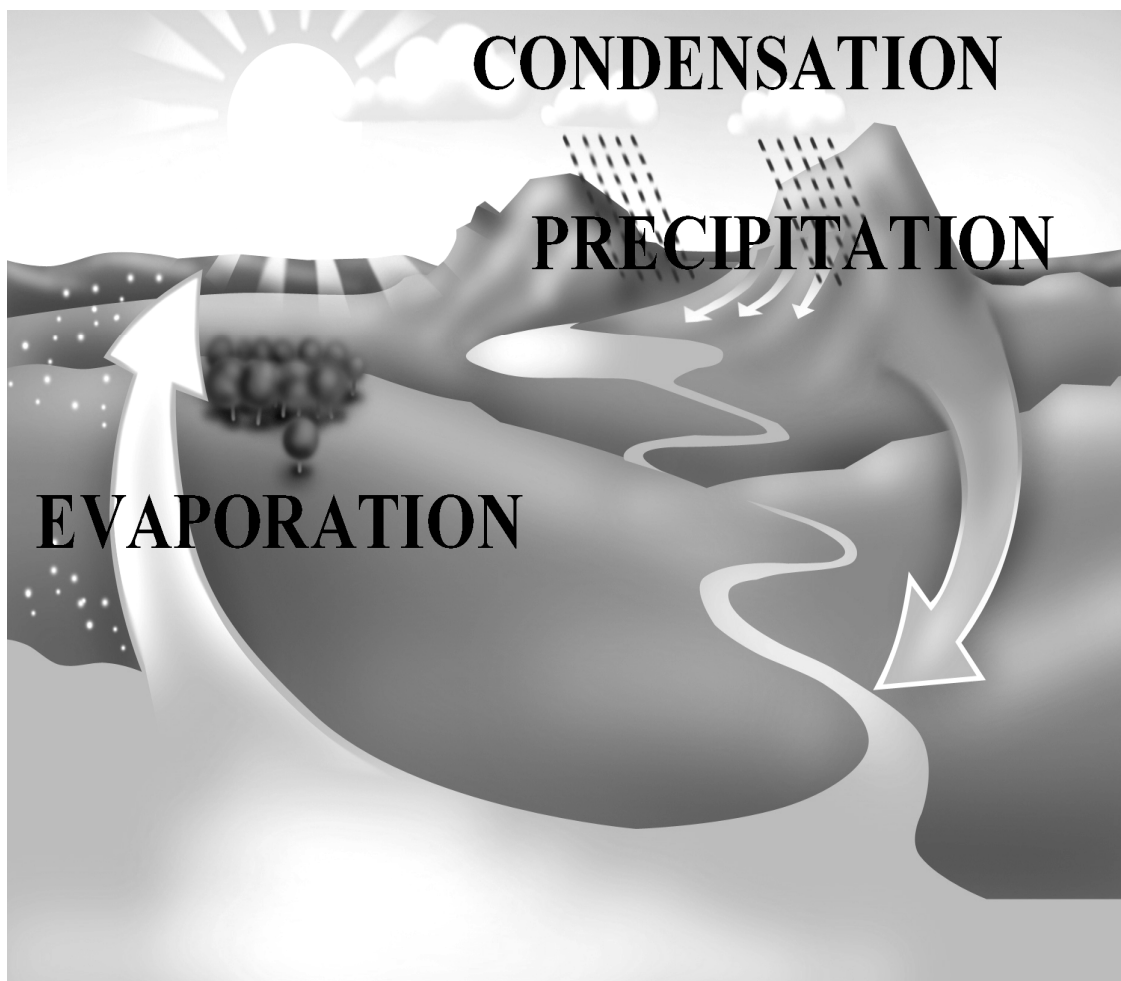


## Let's Study This

Water may exist in different states namely solid, liquid and gas. Water changes from one state to another state depending on certain conditions.

Water absorbed heat, so water level decreases because water evaporates. This change from liquid water to water vapor is due to the water absorption. The absorption of heat by water particles make the surrounding cool. As the surrounding air becomes cool and saturated, the air gives off all the water vapor it could no longer hold. The

released water vapor turns to water droplets or mist which cools surfaces like rocks, glass, or leaves of plants. The changing of water vapor to water droplets is called **condensation**. Water vapor in the air rises to the upper atmosphere. It condenses and forms a cloud. When clouds become too heavy with water vapor the air can no longer support their weight and let go of the water droplets and fall back to the earth surface as rain. The falling of any water from the air to the surface of the earth is called **precipitation**. Examples of precipitation are rain, snow or hail.



When the sun shines, water evaporates again, cools later and condenses and falls back again to the earth surface. This never-ending cycle is called **water cycle**.



## Let's Do This

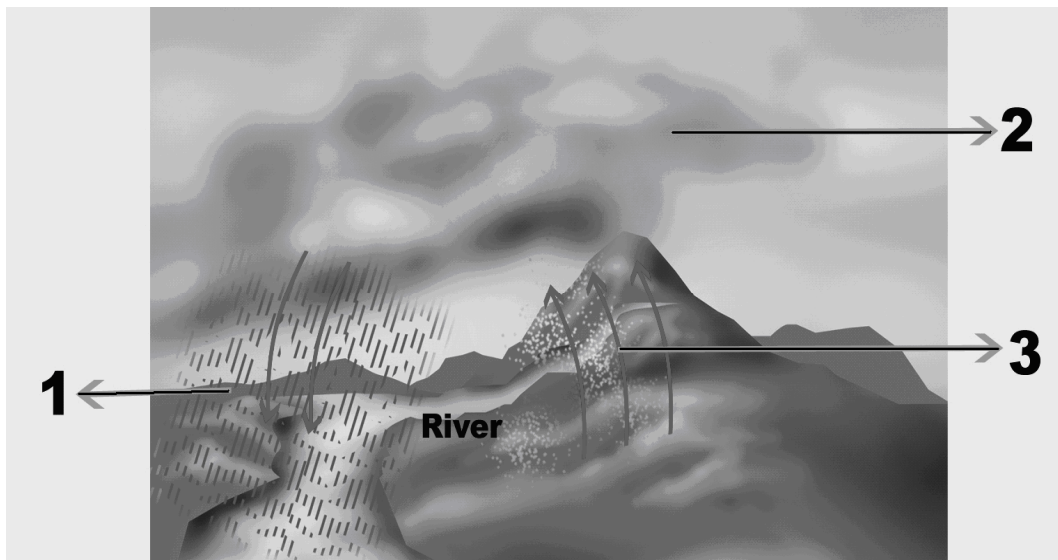
Supply the answer.

- 1.) What are the 3 processes involved in water cycle?
- 2.) The changing of liquid water to gas.
- 3.) The changing of gas into liquid again.
- 4.) The falling back of moisture to the earth surface.
- 5.) What are the 3 states of water?



## Let's Do More

A. Label the drawings.



B. Describe each:

1. Evaporation
2. Condensation
3. Precipitation



## Let's Remember This

- Water evaporates from the earth's surface with the aid of sunlight. At certain conditions, water condenses into clouds and eventually fall as snow or rain to the ground. This never-ending cycle is called water cycle.
- Water cycle involves three processes:
  - ▶ Evaporation
  - ▶ Condensation
  - ▶ Precipitation



## Let's Test Ourselves

Encircle the letter that has the correct answer.

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## Science Fact File

The rate of evaporation and condensation is affected by temperature. Evaporation is fast when the temperature is high and in contrast, condensation is fast when temperature is low.



## Answer Key

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### Let's Try This

- 1.) a
- 2.) b
- 3.) b
- 4.) a
- 5.) c

### Let's Do This

**A.**

- 1.) evaporation, condensation, precipitation
- 2.) evaporation
- 3.) condensation
- 4.) precipitation
- 5.) solid, liquid, gas

### Let's Do More

**A.**

- 1.) precipitation
- 2.) condensation
- 3.) evaporation

**B.**

- 1.) the changing of water to water vapor.
- 2.) the changing of water from gas to liquid.
- 3.) the falling of moisture from the air in the form of rain or snow.

### Let's Test Ourselves

- 6.) a
- 7.) b
- 8.) b
- 9.) a
- 10.)c