The Water Cycle

NATURAL HISTORY ON THE NET

Read the passage carefully. Then, answer the questions that follow

Water is always moving around us, even when we don't notice it. This continuous movement is called the water cycle, and it plays an important role in maintaining life on Earth.

The cycle begins when the Sun heats water in oceans, lakes, rivers, and puddles, turning it into vapor through evaporation. Plants also release moisture into the air in a process called transpiration.

As the water vapor rises, it cools and forms tiny droplets, creating clouds. This process is called condensation. When the droplets grow heavy, they fall back to Earth as precipitation, rain, snow, sleet, or hail.

Some of this water flows into rivers, lakes, and oceans (runoff), while some seeps underground and becomes groundwater. Over time, groundwater moves back to larger bodies of water, and the cycle begins again.

The water cycle is a natural recycling system. Since no new water is added or removed, Earth continuously reuses its water, making it essential for drinking, farming, and supporting ecosystems.

A Short Answer Questions

1. Explain the role of the Sun in the water cycle.

2. What happens after water vapor condenses in the atmosphere?

3. How does groundwater return to lakes or oceans?

4. How does precipitation help refill rivers, lakes, and groundwater?

B Higher-Order Thinking Questions

1. Imagine the Sun stopped shining for a week. How would this affect the water cycle?

2. How would human life and ecosystems be affected if the water cycle stopped recycling water naturally?

3. If more water becomes groundwater than usual, how might that affect rivers and lakes?

C Match the following events in the order they happen in the water cycle:

Water vapor rises into the air	○ 1
Precipitation falls to Earth	○ 2
The Sun heats up water	○ 3
Clouds form in the sky	○ 4

D Write 'True' or False', If false, write the correct statement

1. Condensation forms rainbows in the sky

2. Groundwater can flow back to oceans

3. Precipitation can be rain, snow, or hail

Answers

A

1. The Sun heats up water in oceans, lakes, and rivers, causing it to evaporate and start the water cycle.

2. After condensation, the water forms clouds and eventually falls back to Earth as precipitation.

3. Groundwater moves slowly through soil and rocks and eventually flows back into lakes, rivers, or oceans.

4. Precipitation helps refill rivers, lakes, and groundwater by bringing water back to Earth's surface. Rain and snow flow into rivers and lakes, while some water soaks into the ground to replenish groundwater.

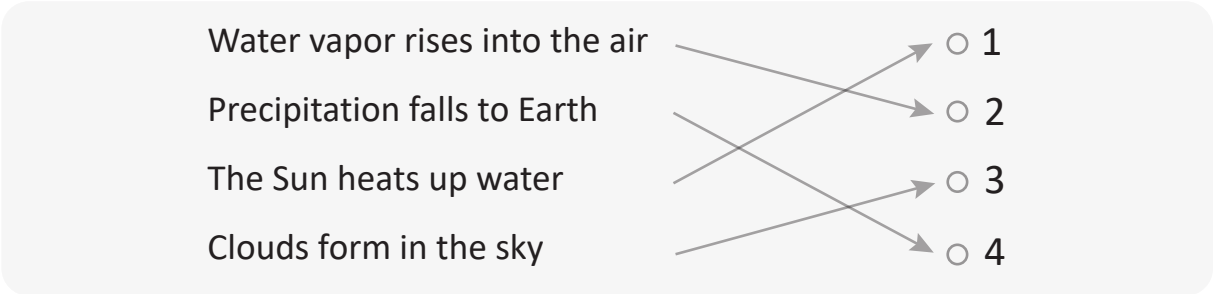
B

1. If the Sun stopped shining, there would be very little evaporation, and the water cycle would slow down or stop, affecting rainfall and water availability.

2. If the water cycle stopped recycling water naturally, humans and ecosystems would quickly face water shortages. Rivers, lakes, and groundwater would dry up, leading to droughts, crop failures, loss of drinking water, and collapse of habitats for plants and animals, ultimately threatening all life on Earth.

3. If more water becomes groundwater, less water would flow into rivers and lakes, which could cause them to shrink or dry up over time.

C



D

1. False. Condensation forms clouds in the sky
2. True
3. True