Water Through Earth's Systems

Grade 5 • SCIENCE • Students practice tracing water through evaporation, condensation, precipitation, collection, and interactions among Earth's spheres. • Standards: 5-ESS2-1

Read each question carefully and write your answer on the line. Think about how water moves between the atmosphere, hydrosphere, geosphere, and biosphere.

1. When liquid water changes into water vapor and rises into the air, this process is called _____.

2. Water vapor in the air cools and changes back into tiny liquid droplets to form clouds. This process is called _____.

3. When water falls from clouds as rain, snow, sleet, or hail, this process is called _____.

4. A puddle on the sidewalk slowly disappears on a sunny day. Which process causes the water to enter the atmosphere?

5. After a rainstorm, water soaks into the soil and becomes groundwater stored in the geosphere. What is this process called?

6. A tree absorbs water from the soil through its roots. The tree then releases water vapor through its leaves into the air. Which two of Earth's spheres are interacting in this example?

7. Trace the path: Ocean water evaporates, rises into the atmosphere, cools to form clouds, and then falls as rain into a lake. List the water cycle processes in order.

8. Snow falls from the sky onto a mountain and later melts. The melted water soaks into the ground to become groundwater, and later flows out into a river. Which three Earth spheres does the water move through, in order?

9. A farmer waters her vegetable garden. The plants absorb some water, some water soaks into the ground, and some evaporates into the air. Identify all four Earth spheres involved in this scenario.

10. Explain why water that evaporates from the ocean today might fall as precipitation on land hundreds of miles away several days later, describing at least two water cycle processes.

Answer Key — Water Through Earth's Systems

For the teacher / parent. Do not distribute with the worksheet.

1. evaporation

2. condensation

3. precipitation

4. evaporation

5. infiltration *(Water soaking into the soil is called infiltration; it can then flow down to become groundwater.)*

6. biosphere and atmosphere

7. evaporation, condensation, precipitation, collection

8. atmosphere, geosphere, hydrosphere *(Snow falls from the atmosphere, groundwater is stored in the geosphere, and the river is part of the hydrosphere.)*

9. hydrosphere, biosphere, geosphere, atmosphere *(Water is hydrosphere, plants are biosphere, ground/soil is geosphere, air is atmosphere)*

10. Ocean water evaporates and becomes water vapor in the atmosphere. Wind carries the water vapor over land where it condenses into clouds and falls as precipitation. *(Must mention evaporation from ocean, movement in atmosphere, and condensation or precipitation over land)*