

Nova's Water Cycle Expedition

Learning objective: To identify and describe the processes of the water cycle, including evaporation, transpiration, condensation, and precipitation.

Join Nova the barn owl on an adventure through the clouds! Read the questions carefully and use your scientific knowledge to help Nova map out how water moves around our planet. Good luck, young scientist!

Answer Key: 1. B (Evaporation), 2. True, 3. Condensation, 4. D (Transpiration), 5. False, 6. Precipitation, 7. C (Liquid to Gas), 8. True, 9. The sun, 10. A (It moves around in a continuous loop).

Word bank: evaporation · condensation · precipitation · transpiration · collection · vapour · atmosphere

1. 1. When the sun warms the water in the ocean and turns it into water vapour, this is called: A) Condensation B) Evaporation* C) Precipitation D) Collection (1 mark)

2. 2. True or False: Clouds are formed when water vapour cools down and turns back into tiny liquid droplets. (1 mark)

3. 3. What is the scientific term for the process where water vapour turns back into liquid water to form clouds? (1 mark)

4. 4. Plants release water vapour from their leaves into the air. What is this process called? A) Evaporation B) Precipitation C) Collection D) Transpiration* (1 mark)

5. 5. True or False: Precipitation only happens in the form of rain. (1 mark)

6. 6. Fill in the blank: When water falls from clouds as rain, snow, or hail, we call this _____. (1 mark)

7. 7. Evaporation involves a change of state from: A) Gas to liquid B) Solid to liquid C) Liquid to gas* D) Liquid to solid (1 mark)

8. 8. True or False: The water cycle has a definite beginning and a definite end. (1 mark)

9. 9. What is the primary source of thermal energy that drives the entire water cycle? (1 mark)

10. 10. Which best describes the water cycle? A) It moves around in a continuous loop* B) It happens only in the ocean C) It stops when it is cloudy D) It only moves upwards (1 mark)

Draw: Draw a diagram of the water cycle. Ensure you label the sun, the ocean, the mountains, and include arrows to show the direction of evaporation, condensation, and precipitation.



Extension challenge: Greater Depth Challenge: 1. Explain why the water cycle is essential for life on Earth. 2. Compare and contrast the processes of evaporation and condensation. 3. Justify why the total amount of water on Earth remains roughly the same over time. 4. What might happen if the sun stopped heating the Earth's surface? 5. Describe the role that trees play in the water cycle. 6. If you were a droplet of water, write a creative short story (100 words) describing your journey from a mountain stream back into a cloud.