Nova’s Amazing Water Cycle Adventure

Learning objective: To describe the water cycle and explain the roles of evaporation, condensation, and precipitation.

Read the passage about Nova the Owl's discovery of the water cycle. Use the information provided to answer the questions below. Think carefully about how water changes state as it travels around the Earth.

Nova the Owl was perched high in her tree, watching the morning sun warm up the forest pond. She noticed a faint mist rising from the water’s surface. 'That is evaporation!' Nova hooted. 'The sun’s heat turns the liquid water into invisible water vapour that rises into the sky.' As the vapour travelled higher, the air grew much colder. Nova watched as the vapour cooled down to form fluffy white clouds. 'That’s condensation,' she explained to a passing squirrel. 'The gas turns back into tiny liquid droplets.' When the clouds became too heavy and dark, they could no longer hold the water. It began to fall as rain, which Nova called precipitation. The rain trickled down the hills and back into the pond, where it waited to begin its journey all over again.

Word bank: Evaporation · Condensation · Precipitation · Collection · Vapour · Temperature

1. Using the passage, explain what happens to water during the process of evaporation. (2 marks)

2. Why do clouds form high up in the sky according to Nova? (2 marks)

3. What is the scientific name for water falling from the clouds as rain? (1 mark)

4. If the temperature of the air stayed very hot and never cooled down, would it ever rain? Explain your reasoning. (3 marks)

5. Name one place where water might be stored during the 'collection' stage of the cycle. (1 mark)

Draw: Draw a diagram of the water cycle. Include labels for evaporation, condensation, and precipitation, and draw arrows to show the direction the water moves.

Extension challenge: Imagine you are a tiny drop of water. Write three sentences describing your journey through the water cycle, starting from the ocean and ending as rain on a mountain.