

Year 6 Science Assessment: The Water Cycle

Learning objective: To demonstrate an understanding of the processes within the water cycle and the role of the Sun in driving these changes.

Read each question carefully before answering. Ensure your explanations are clear and use scientific terminology where appropriate. Write your answers in the spaces provided.

Nova the barn owl is observing the landscape from her oak tree. She notices that after a hot morning, the puddles on the forest floor have disappeared. Later, she watches grey clouds gather above the hills, and soon, rain begins to fall. She knows this is all part of the continuous movement of water on Earth.

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

1. Nova observes that puddles disappear on a hot day. Name the process occurring and explain what happens to the water molecules. (2 marks)

2. How does the Sun act as the engine for the water cycle? Give a detailed explanation. (3 marks)

3. Define 'condensation' and describe how it leads to the formation of clouds in the sky. (3 marks)

4. List two forms of precipitation and explain how temperature affects the type of precipitation that reaches the ground. (4 marks)

5. What is transpiration? Explain the role plants play in the water cycle. (3 marks)

6. Max the monkey is trying to calculate how much water could be stored in a local lake. If a lake has a volume of 500,000 litres and loses 15% to evaporation, how much water remains? Show your working. (5 marks)

7. Explain why the water cycle is described as a 'closed system'. (5 marks)

Draw: Draw a diagram of the water cycle. You must label the following: Evaporation, Condensation, Precipitation, and Collection. Use arrows to show the direction of water movement.



Extension challenge: Total: /25