

# The Mystery of the Morning Dew: An Explanation

*Learning objective: To identify the features of an explanation text and use evidence from the text to support understanding.*

Read the text carefully. Use the word bank to help you understand the scientific process. Answer the questions in full sentences, using evidence from the passage where required.

Have you ever wondered why the grass is damp on a clear, chilly morning, even when it hasn't rained? This fascinating phenomenon is called morning dew. Throughout the day, the sun warms the Earth, turning liquid water from puddles and plants into an invisible gas known as water vapour. This is called evaporation. As the sun sets, the air begins to cool down significantly. Cold air cannot hold as much water vapour as warm air. When this warm, moisture-filled air touches a cool surface—like a blade of grass or a metal gate—it loses its heat rapidly. The water vapour transforms back into tiny liquid water droplets. This process is known as condensation. By the time the sun rises, these droplets have gathered together, coating the garden in a sparkling, wet sheen. The dew will remain until the sun climbs high enough to warm the air once more, turning the droplets back into vapour. Nature is constantly recycling its water in this quiet, invisible cycle.

*Word bank: condensation · evaporation · vapour · temperature · surface · phenomenon*

**1. According to the text, what two things happen to water vapour when the sun rises? (2 marks)**

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**2. List two examples of a 'surface' mentioned in the text where dew might collect. (2 marks)**

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**3. Why does dew typically form on a clear night rather than a cloudy one? (Hint: Think about how the air temperature changes). (2 marks)**

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**4. Explain why the author describes the water vapour as 'invisible'. (2 marks)**

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5. Nova the owl loves observing the night sky. Why do you think she considers the water cycle to be a 'brilliant' process? Justify your answer using the text. (3 marks)

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**Draw:** Draw a diagram showing the water cycle in a garden, including the sun, a blade of grass with dew drops, and arrows showing the movement of water vapour.



*Extension challenge: Compare and contrast evaporation and condensation. In your response, explain what might happen to the Earth's water supply if the process of condensation suddenly stopped. Justify your reasoning using scientific vocabulary.*