

Nova's Autumnal Observations

Learning objective: To understand the seasonal changes in plants and animals during autumn.

Read the passage carefully and answer the questions below. Ensure you use full sentences for your answers.

As the golden sun sets earlier each evening, Nova the barn owl notices the woodland transforming. Autumn is a period of transition. Most deciduous trees, like oaks and beeches, prepare for the colder months by shedding their leaves. During summer, leaves are green because they are packed with chlorophyll, which helps the tree make food. As the days shorten and temperatures drop, the trees stop producing chlorophyll. This reveals hidden pigments—vibrant oranges, deep reds, and brilliant yellows—that were masked all summer.

Meanwhile, the forest floor becomes a busy hub of activity. Squirrels and hedgehogs forage for nuts and seeds, storing energy to survive the winter. Some animals prepare for hibernation, a state of deep sleep to conserve energy. Others, particularly migratory birds, begin their long journeys towards warmer climates. Nature is incredibly clever; by slowing down, plants and animals protect themselves from the frost. Nova watches from her branch, noting that autumn isn't just about things ending; it is a vital time for preparation, ensuring that life can flourish again when spring eventually returns to the canopy.

Word bank: deciduous · chlorophyll · dormancy · migration · photosynthesis · temperatures

1. Identify two colours that are revealed in leaves once the chlorophyll stops being produced. (2 marks)

2. According to the text, why do some animals hibernate during the autumn and winter months? (2 marks)

3. Explain why trees might be considered 'clever' for shedding their leaves as temperatures drop. (3 marks)

4. Compare and contrast the behaviours of squirrels and migratory birds as they prepare for winter. (4 marks)

5. Do you agree with Nova that autumn is a time of 'preparation' rather than 'ending'? Justify your answer using evidence from the text. (3 marks)

Draw: Draw a woodland scene showing a deciduous tree losing its leaves, with a squirrel gathering nuts nearby and Nova the owl watching from a branch.



Extension challenge: Imagine you are a scientist studying seasonal changes. Write a brief field report explaining what might happen to the local ecosystem if autumn temperatures remained as warm as summer temperatures for the entire year. How would this disrupt the cycle of dormancy and migration?