

Autumn Science Assessment

Learning objective: To identify seasonal changes, understand the lifecycle of deciduous trees, and explain animal behaviours during autumn.

Read each question carefully. Answer in full sentences where required. Write clearly and ensure you include scientific vocabulary.

As the Earth tilts on its axis, the amount of sunlight reaching the UK begins to decrease. Nova the owl notices the leaves on the trees changing from bright green to shades of gold, orange, and brown. Meanwhile, Bea the honeybee observes the flowers closing up for the season and animals preparing for the colder months ahead.

Word bank: deciduous · chlorophyll · dormancy · migration · hibernation · photosynthesis · temperature · evergreen

1. Explain why leaves on deciduous trees change colour and fall off during autumn. Use the word 'chlorophyll' in your answer. (3 marks)

2. Name two different ways animals, such as hedgehogs or birds, might change their behaviour to survive the arrival of autumn. (2 marks)

3. Max the monkey wants to buy winter supplies for the forest animals. If he buys three bags of birdseed at £2.50 each and a feeder for £4.00, how much money does he spend in total? (3 marks)

4. How does the change in daylight hours during autumn affect the growth of plants? (2 marks)

5. Compare a deciduous tree to an evergreen tree. What is the main difference in how they respond to the autumn and winter seasons? (3 marks)

6. Nova the owl is watching the forest prepare for winter. Write a short scientific report (about 5-7 sentences) explaining three changes Nova might observe in the environment as autumn progresses into winter. Include how these changes impact the living things in the habitat. (5 marks)

7. Define the term 'dormancy' and explain why it is an important survival strategy for plants. (2 marks)

8. If a squirrel collects 12 acorns in September, 15 in October, and 8 in November, how many acorns has it collected in total for the winter? (2 marks)

9. Why do some birds choose to migrate rather than stay in the UK during the winter months? (3 marks)

Draw: Draw a diagram of a deciduous tree. Label the leaves, the branches, and the roots, and show one way the tree changes as it prepares for the winter.



Extension challenge: Total: /25. Imagine you are a scientist like Bea. Write a poem or a short paragraph describing the 'Autumn Transition' of a forest habitat.