Nova’s Autumnal Investigation

Learning objective: To understand the life cycles of deciduous trees and the environmental changes that occur during the fall season.

Nova the owl has been observing the local woodland. Help her complete the 'Life Cycle Sort' by categorising the events of a deciduous tree throughout the year. Place the numbers 1 to 6 in the correct chronological order, starting with the first signs of spring.

Word bank: Photosynthesis · Chlorophyll · Deciduous · Dormancy · Germination · Nutrients

1. 1. The tree enters a period of dormancy to survive the cold winter months. (Order: _) (1 mark)

2. 2. Tiny buds begin to swell and burst open as the temperature rises. (Order: _) (1 mark)

3. 3. The tree produces seeds or fruit (like acorns or conkers) to help new trees grow. (Order: _) (1 mark)

4. 4. Leaves change color from green to brown as chlorophyll production stops. (Order: _) (1 mark)

5. 5. The tree is in full bloom with green leaves, producing energy through photosynthesis. (Order: _) (1 mark)

6. 6. The leaves fall to the ground, allowing the tree to conserve water and energy. (Order: _) (1 mark)

Draw: Draw a cross-section of a deciduous tree during fall. Label the roots, the trunk, and the leaves, showing how the tree saves energy before winter.

Extension challenge: Research why leaves change color. Write a short paragraph explaining the role of chlorophyll and why the tree 'withdraws' its nutrients before the leaves fall.