# Nova’s Autumnal Investigation

*Learning objective: To understand the life cycles of deciduous trees and the environmental changes that occur during the autumn 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 colour 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 autumn. Label the roots, the trunk, and the leaves, showing how the tree saves energy before winter.**

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