

Nova's Autumnal Observation Log

Learning objective: To identify and describe the life cycles of common plants and observe the seasonal changes occurring in the environment during autumn.

Join Nova the owl on an outdoor expedition! Use your senses to observe the changes in your local environment as we transition into autumn. Record your findings in the boxes below, using scientific vocabulary to justify your observations. Look closely at the plants and trees around you.

Word bank: deciduous · chlorophyll · dormancy · photosynthesis · migration · environment · adaptation · decomposition

1. Tree Classification: Identify a local tree. Is it deciduous or evergreen? Describe the physical changes happening to its leaves and explain why these changes occur as the days grow shorter. (3 marks)

2. The Process of Decay: Observe a fallen leaf on the ground. Describe its appearance and justify why it is important for the nutrients to return to the soil. (2 marks)

3. Comparing Habitats: Compare and contrast the activity of garden wildlife you see today with what you might expect to see in the height of summer. What might happen to these creatures if the winter turns out to be exceptionally cold? (4 marks)

4. Scientific Reasoning: Explain why many plants stop producing food (photosynthesis) during the autumn months. What is the benefit of this change for the plant's survival? (3 marks)

5. Predictive Thinking: If you were to revisit this exact spot in three months' time, what specific changes would you expect to observe in the vegetation? Justify your prediction. (3 marks)

6. Independent Research: Find one example of a seed or fruit that has matured this autumn. Describe its method of dispersal (e.g., wind, animals, water) and explain why this method is effective. (3 marks)

Extension challenge: Design a short field study proposal: If you were to observe these trees for the entire year, how would you document the cycle of dormancy and growth? Create a table showing the four seasons and list one major change you would look for in each.