# Nova’s Garden Classification Challenge

*Learning objective: To identify and classify living things into broad groups according to observable characteristics and use classification keys to help group, identify, and name a variety of living things.*

Read each question carefully and use your knowledge of scientific classification to complete the tasks. Ensure you use clear, scientific terminology.

Nova the barn owl has been observing the wildlife in her meadow. She needs your help to organise the creatures she has spotted into their correct scientific groups using her classification key.

*Word bank: Vertebrate · Invertebrate · Mammal · Amphibian · Reptile · Bird · Fish · Arthropod · Mollusc · Classification Key*

**1. Nova spots a creature with a backbone, moist skin, and no scales. It spends part of its life cycle in water and part on land. Define which group this animal belongs to and explain one characteristic that helped you decide. (2 marks)**

**2. Explain the difference between a vertebrate and an invertebrate. Give one example of each that you might find in a UK garden. (2 marks)**

**3. Nova finds an animal that has six legs, an exoskeleton, and three main body parts. Using the correct scientific term, classify this animal and identify which larger group it belongs to. (2 marks)**

**4. Why do scientists use classification keys? Describe how a key helps someone identify an unknown organism step-by-step. (2 marks)**

**5. Look at these three animals: a robin, a goldfish, and a slug. Create a simple branching classification key that differentiates between these three using 'Yes' or 'No' questions. (3 marks)**

**Draw: Draw a classification key that starts with the question 'Does the animal have a backbone?'. Include at least four different animals in your diagram, branching them out by their features (e.g., feathers, scales, or number of legs).**

*Extension challenge: Choose two animals from the same group (e.g., two different types of mammals). Write a paragraph explaining why they belong to the same group despite having different physical appearances.*