Nova’s Guide to Classification

Learning objective: To understand how classification keys are used to group, identify, and name living things based on their observable characteristics.

Read the text carefully and answer the questions below. Ensure you use full sentences for your answers.

Nova the barn owl spends her nights watching the creatures of the meadow. To make sense of the world, she uses a classification key. A classification key is a clever tool used by scientists to identify living things by asking a series of ‘yes’ or ‘no’ questions. Each question focuses on a specific physical characteristic, such as whether an animal has fur, feathers, or a backbone. By following the path of answers, Nova can identify exactly which species she is looking at. For example, she might first ask if the creature has a backbone. If the answer is yes, it is a vertebrate. If no, it is an invertebrate. Further questions might ask about diet or habitat to narrow the search down. Classification helps scientists organise the millions of species on Earth into manageable groups. Without these keys, it would be impossible to keep track of the vast variety of life in our natural world. Whether studying a tiny beetle or a large mammal, classification provides a clear map for discovery, helping us understand how all living things are connected.

Word bank: Classification · Organism · Key · Characteristic · Vertebrate · Invertebrate · Species

1. What are the two main types of questions used in a classification key? (2 marks)

2. According to the text, what is the primary purpose of using a classification key? (2 marks)

3. Why might a scientist need to know if an animal has a backbone before asking other questions? (2 marks)

4. Based on the passage, what might happen to scientific research if we did not have classification systems? (2 marks)

5. Do you think classification keys are the best way to learn about animals? Explain your reasoning. (3 marks)

Draw: Draw a simple, original classification key that helps Nova identify three different animals found in a garden, using at least two 'yes' or 'no' questions.

Extension challenge: Choose three living things you might find in your local park. Write your own classification key with at least four questions to help someone else identify them.