Classification and the Natural World

Learning objective: To understand the principles of classification and how living things are grouped according to their characteristics.

Read the text carefully and answer the questions below. Use full sentences where appropriate.

Nova the barn owl spends her nights observing the vast variety of life in the forest. To make sense of the world, she uses classification, a system that sorts living things into groups based on their shared characteristics. Every organism, from the tallest tree to the smallest insect, fits into a specific category. Scientists look for unique features, such as whether an animal has a backbone, known as a vertebrate, or lacks one, known as an invertebrate.

Bea the honeybee helps Nova by explaining that plants are classified differently; they are grouped by how they grow and reproduce. Even tiny, invisible life forms like bacteria are classified as micro-organisms. By grouping these living things, we can better understand how they are related and how they survive in their habitats. Whether it is a bird with feathers or a flower with petals, every living thing has a place in the system. Nova finds that when we observe these patterns, we learn to appreciate the complexity and balance of our natural world. It is not just about naming things; it is about understanding how life is connected across our planet.

Word bank: Classification · Organism · Vertebrate · Invertebrate · Characteristic · Micro-organism

1. According to the text, what is the main difference between a vertebrate and an invertebrate? (2 marks)

2. How does the text describe the classification of plants compared to animals? (2 marks)

3. Why might a scientist need to classify a newly discovered organism? (2 marks)

4. Based on the passage, why is it useful to classify micro-organisms, even though we cannot see them? (2 marks)

5. Nova believes that classification helps us understand the 'balance' of the natural world. Do you agree that grouping living things helps us protect the environment? Justify your answer. (3 marks)

Draw: Draw a classification chart that includes four different living things. Group them into two categories, such as 'Vertebrates' and 'Invertebrates', or 'Plants' and 'Animals'.

Extension challenge: Choose one animal or plant. Research its scientific classification and write a short paragraph explaining why it belongs in its specific group.