

Classifying the Natural World with Bea the Bee

Learning objective: To classify living things into groups using keys and observational features, and to understand how environments affect life cycles.

Use this scaffold to structure your report on an ecosystem of your choice. Use your scientific vocabulary to explain why you have categorised your chosen organisms in specific ways.

As we explore the vibrant meadow with Bea the Bee, we discover an intricate web of life that requires careful classification to understand.

Word bank: invertebrate · vertebrate · classification · characteristics · habitat · dichotomous · consequently · furthermore · specifically · in contrast · adaptation

1. Introduction: Describe the habitat you have chosen and explain why it is a suitable environment for a variety of living things. Start with: 'The environment I have chosen to investigate is...' (2 marks)

2. Classification Criteria: Explain the criteria you would use to sort the living things in this habitat. How do you distinguish between vertebrates and invertebrates? Start with: 'To classify the organisms found here, I would first check...' (3 marks)

3. Adaptation Analysis: Choose one specific creature. Justify why its physical features (such as wings, fur, or camouflage) help it survive in this habitat. Start with: 'One creature that thrives in this area is the... because...' (3 marks)

4. Comparative Study: Compare and contrast two living things from your habitat. What do they have in common and how are they different? Start with: 'When comparing the [Organism A] and the [Organism B], it is evident that...' (3 marks)

5. Environmental Impact: What might happen to the creatures in your habitat if the environment suddenly changed (e.g., a drought or pollution)? Start with: 'If the environmental conditions were to alter, the living things would face...' (4 marks)

6. Conclusion: Summarise the importance of classification in science. Why is it useful for scientists to group living things? Start with: 'Classifying living things is a vital scientific process because...' (2 marks)

Extension challenge: Design a complex 'dichotomous key' that could be used by another student to identify five different organisms within your chosen habitat. Write a paragraph explaining the logic behind your branching questions and justify why you chose those specific physical characteristics to split the groups.