

Year 6 Science Assessment: Habitats and Adaptation

Learning objective: To demonstrate understanding of how living things are classified, how habitats support life, and how organisms are adapted to their environments.

Read each question carefully. Use full sentences for written answers. Ensure your scientific vocabulary is accurate.

Nova the barn owl has been observing the local woodland. She notes that the forest floor is home to many invertebrates living under rotting logs, while the canopy provides shelter for various birds. Meanwhile, Finn the dolphin has been mapping the coastal waters, observing how different species have developed specific features to survive in the cold, deep ocean.

Word bank: Classification · Vertebrate · Invertebrate · Adaptation · Environment · Micro-habitat · Characteristic · Evolution

1. Explain the difference between a vertebrate and an invertebrate. Give one example of each. (2 marks)

2. Nova observes a beetle living under a damp log. Define the term 'micro-habitat' and explain why the log is a suitable home for this beetle. (3 marks)

3. Finn the dolphin observes that fish have gills while mammals like dolphins have lungs. Explain why these are considered 'adaptations'. (3 marks)

4. Linnaeus is famous for his system of classification. Name the two main groups into which he divided living things based on shared characteristics. (2 marks)

5. A plant is moved from a sunny, dry meadow to a dark, damp cave. Predict two reasons why this plant might struggle to survive in its new environment. (4 marks)

6. Choose a specific animal. Describe its habitat and explain three ways its physical characteristics help it survive there. Ensure you use scientific vocabulary such as 'adaptation' and 'environment'. (5 marks)

7. If a species cannot adapt to changes in its environment, what is the likely long-term consequence for that species? Explain your reasoning. (3 marks)

8. Identify one human activity that could negatively impact a local woodland habitat. (3 marks)

Draw: Draw a diagram of a creature you have invented. Label three specific physical adaptations it has that would help it survive in a desert habitat.



Extension challenge: Total: /25. Extension: Research how climate change might affect the migration patterns of birds like Nova the owl and write a short paragraph explaining your findings.