

Year 5 Science Assessment: Habitats and Life Cycles

Learning objective: To demonstrate understanding of animal life cycles, habitat adaptations, and environmental changes.

Read each question carefully. Use your scientific knowledge to provide detailed explanations. Ensure your answers are clear and written in full sentences where required.

Nova the owl is observing the woodland ecosystem. She notices that as the seasons change, the behaviours and physical traits of the creatures change too. Some animals migrate to warmer climates, while others prepare for hibernation. Meanwhile, Bea the honeybee is busy visiting flowers, ensuring the plants can reproduce effectively within this shared habitat.

Word bank: adaptation · metamorphosis · amphibian · mammal · environment · ecosystem · gestation · pollination · nocturnal

1. Nova observes that some animals are nocturnal. Explain why being nocturnal might be an advantage for a predator in a woodland habitat. (2 marks) (2 marks)

2. Compare the life cycle of a frog with the life cycle of a mammal. Identify one key difference in how their young develop. (3 marks) (3 marks)

3. Bea the honeybee plays a crucial role in plant reproduction. Describe the process of pollination and explain why it is vital for the plant's survival. (4 marks) (4 marks)

4. Choose one animal of your choice. Justify how two of its physical adaptations help it survive specifically within its chosen habitat. (4 marks) (4 marks)

5. What might happen to an ecosystem if a specific species of plant was removed entirely? Explain the ripple effect this could have on other organisms. (4 marks) (4 marks)

6. Extended Writing Task: Imagine a new, extreme environment, such as a frozen tundra or a scorching desert. Describe an imaginary creature adapted to live there. You must explain how its physical features and behaviours allow it to thrive in such harsh conditions. (5 marks) (5 marks)

7. How does the gestation period of a mammal compare to the incubation period of a bird? Why might these durations differ between species? (3 marks) (3 marks)

Draw: Draw a labelled diagram of a chosen animal, clearly identifying two adaptations that help it survive in its natural habitat.



Extension challenge: Total: /25. Challenge: Research a local conservation project. Write a brief proposal explaining how human activity can be managed to protect a local habitat from degradation.