

Class 4 Science Assessment: Habitats and Environmental Change

Learning objective: To evaluate understanding of how living things are classified, how environments change, and the impact of human activity on local habitats.

Read each question carefully. Answer in full sentences where indicated. Ensure your scientific vocabulary is precise.

Bea the honeybee has been observing the local meadow. She notices that a new housing development is being built on the edge of the woods, and the local pond is becoming clouded with litter. Meanwhile, Nova the owl has been documenting how the nocturnal animals in the forest are struggling to find food as the trees are trimmed back.

Word bank: classification · environment · human impact · adaptations · food chain · deforestation · conservation · endangered

1. Define the term 'habitat'. Why is a habitat essential for the survival of a living thing? (2 marks)

2. Bea the honeybee relies on flowers for nectar. If the meadow were replaced by a car park, explain what might happen to the local bee population. (3 marks)

3. Give two examples of environmental changes that can occur naturally, and two examples of changes caused by human activity. (4 marks)

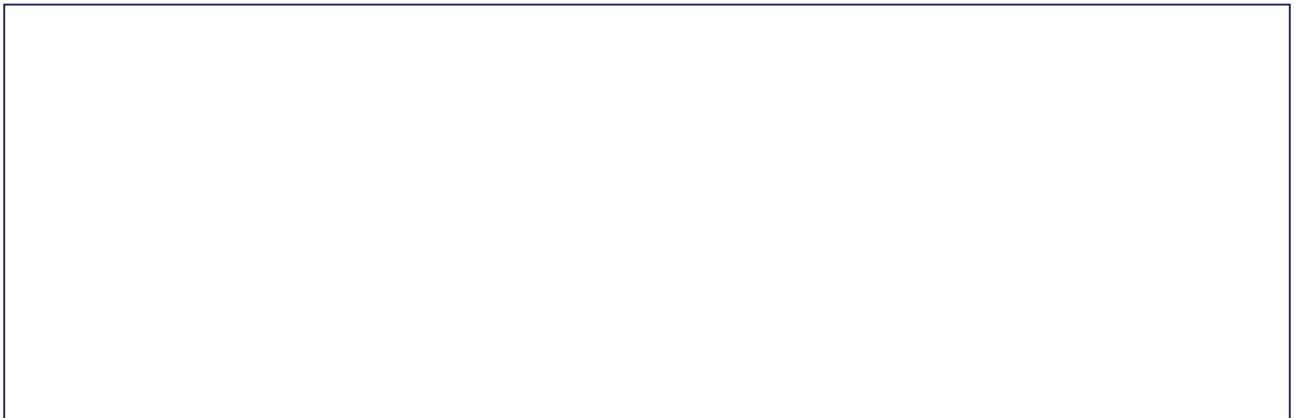
4. Nova the owl is a predator. Describe two adaptations that help her hunt effectively at night. (2 marks)

5. Look at this food chain: Grass -> Caterpillar -> Blue Tit -> Sparrowhawk. What would happen to the number of Blue Tits if the Sparrowhawk population suddenly decreased? Justify your answer. (4 marks)

6. Compare and contrast a pond habitat and a woodland habitat. How do the organisms in each differ in their physical characteristics? (5 marks)

7. Explain why it is important to classify living things into groups. How does classification help scientists track species that are becoming endangered? (5 marks)

Draw: Draw a diagram of a simple food chain found in a pond habitat. Label the producer, the primary consumer, and the secondary consumer.



Extension challenge: Imagine you are a town planner. Write a short proposal (approx. 100 words) explaining how you would build new homes while protecting the local habitat for Bea the honeybee and other wildlife. Consider how you could improve the area for biodiversity. Total: /25