

Year 5 Science Assessment: Living Things and Their Habitats

Learning objective: To describe the differences in the life cycles of a mammal, an amphibian, an insect, and a bird, and to describe the life process of reproduction in some plants and animals.

Read each question carefully. Answer in full sentences where required. Ensure you use scientific vocabulary correctly.

Nova the barn owl and Bea the honeybee are observing the lifecycle of a garden. They notice that while the bees are helping the flowers reproduce, the local pond is full of frogspawn, and a nearby field is home to a mother rabbit and her litter of kits.

Word bank: metamorphosis · germination · asexual · pollination · amphibian · gestation · reproduction · larva

1. Nova observes a frog growing from spawn to adult. Name the process of transformation that amphibians undergo and describe one stage of this life cycle. (2 marks)

2. Bea explains how plants reproduce. Explain the difference between pollination and seed dispersal. (2 marks)

3. Compare and contrast the life cycles of a bird (like Nova) and a mammal (like a rabbit). Consider how the young are born and how they are cared for. (3 marks)

4. Justify why some plants use asexual reproduction (such as runners or bulbs) instead of relying solely on seeds. (3 marks)

5. What might happen to a plant population if the insect population in that habitat was significantly reduced? Use scientific reasoning to support your answer. (4 marks)

6. Max the monkey is studying the gestation periods of different mammals. Why is it advantageous for some animals to have longer gestation periods than others? (3 marks)

7. Write a detailed scientific report (5 marks) describing the life cycle of a honeybee. Include the following terms: egg, larva, pupa, adult, and metamorphosis. Explain why each stage is vital for the survival of the colony. (5 marks)

Draw: Draw a labelled diagram of the life cycle of a flowering plant, ensuring you clearly mark the stages of pollination, fertilisation, and seed dispersal.



Extension challenge: Total: /25. Extension Task: Research a specific plant that reproduces asexually. Create a 'Survival Guide' poster explaining how this method allows the plant to colonise an area quickly compared to plants that rely on wind-pollinated seeds.