

Year 6 Science Assessment: Reproduction and Life Cycles

Learning objective: To demonstrate an understanding of the life cycles of mammals, amphibians, insects, and birds, and the process of reproduction.

Read each question carefully. Use your scientific knowledge to provide clear and accurate answers. Ensure your spelling and grammar are correct.

Nova the barn owl has been observing the wildlife around the forest. She has noticed that many different living things, from the smallest insects to the largest mammals, follow specific patterns to ensure their species continues to survive. Whether it is through laying eggs or giving birth to live young, the process of reproduction is essential for life on Earth.

Word bank: asexual · sexual · offspring · fertilisation · metamorphosis · pollination · germination · embryo

1. Nova observes that most mammals give birth to live young, while birds lay eggs. Explain one advantage of mammals giving birth to live young compared to laying eggs. (2 marks)

2. Describe the process of metamorphosis in an amphibian, such as a frog. Use the terms 'spawn', 'tadpole', and 'adult' in your answer. (3 marks)

3. Bea the honeybee is busy in the garden. Explain the role of insects in the sexual reproduction of flowering plants. (3 marks)

4. What is the difference between sexual and asexual reproduction? Give one example of a living thing that reproduces asexually. (3 marks)

5. Max the monkey is looking at a life cycle diagram of a butterfly. List the four stages of the butterfly life cycle in the correct order. (4 marks)

6. Compare the life cycles of a bird and an insect. Discuss the similarities and differences in how they protect their offspring and the stages they go through from egg to adult. (5 marks) (5 marks)

Draw: Draw and label a simple diagram showing the life cycle of a flowering plant, starting from a seed and ending with a mature plant producing new seeds.



Extension challenge: Research a plant that reproduces asexually, such as a strawberry runner or a potato tuber. Write a short paragraph explaining why this method is effective for the plant. Total: /25