Life Cycles and Reproduction: The Natural World with Bea the Bee

Learning objective: To describe the differences in the life cycles of a mammal, an amphibian, an insect, and a bird.

Read each question carefully and use your scientific knowledge to provide detailed answers. Remember to think about how different animals start their lives.

Bea the honeybee is busy studying the different ways animals bring new life into the world. From the tiny eggs laid by frogs to the development of young mammals inside their mothers, every species has a unique way of ensuring their kind continues to thrive.

Word bank: reproduction · mammal · amphibian · insect · metamorphosis · gestation · offspring · larva

1. Bea observes that mammals give birth to live young rather than laying eggs. Name two characteristics that distinguish mammals from other animal groups. (2 marks)

2. Frogs are amphibians. Describe the main stages of a frog's life cycle from the moment it hatches from its egg. (2 marks)

3. What is the term used to describe the dramatic change in form that occurs during the life cycle of an insect, such as a butterfly or a beetle? (1 mark)

4. Compare how a bird and a mammal provide care for their offspring. How are their methods of protection similar or different? (3 marks)

5. If a farmer has 5 cows and each gives birth to one calf, how many offspring are there in total? Explain why these calves are classified as mammals. (2 marks)

Draw: Draw a labelled diagram showing the four stages of a butterfly's life cycle: egg, larva (caterpillar), pupa (chrysalis), and adult.

Extension challenge: Research one endangered species. Write a short paragraph explaining how its specific reproduction cycle makes it difficult for the population to recover if their habitat is destroyed.