

Life Cycle Investigator: Field Report

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

Join Nova the owl on an expedition to observe local wildlife. Choose four different creatures—one from each class (mammal, amphibian, insect, bird)—and record how their life cycles differ. Use the vocabulary in the word bank to explain the stages of growth, reproduction, and development.

Word bank: metamorphosis · gestation · larva · incubation · offspring · amphibian · mammal · reproduction · nymph · hatchling

1. Identify your chosen creatures. Explain why each belongs to its specific class (e.g., why is a mammal a mammal?). (3 marks)

2. Describe the early life stage of your chosen insect. Compare this to the early life stage of your chosen mammal. What are the key differences? (3 marks)

3. Explain why some creatures undergo metamorphosis while others grow directly into miniature versions of their adult selves. (3 marks)

4. Justify your answer: Does a longer gestation or incubation period always result in a more independent offspring? Why might this be? (4 marks)

5. Compare and contrast the parental care provided by your chosen bird and your chosen amphibian. What might happen to the survival rate if parental care were removed? (4 marks)

6. What might happen to the local ecosystem if the life cycle of one of your chosen creatures was disrupted by a change in habitat temperature? (3 marks)

Extension challenge: Design a hypothetical creature that thrives in a changing climate. Create a labelled diagram of its life cycle, justifying why each stage of its development helps it survive in a warming world.