Nova’s Guide to Life Cycles and Reproduction

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

Help Nova the owl map out the different ways living things reproduce. Use the word bank to help you describe the life cycles of the four animal groups listed below. Research the key differences between sexual reproduction in these species and fill in each section carefully.

Word bank: asexual · sexual · gestation · metamorphosis · offspring · fertilisation · embryo · incubation · larva

1. Mammals: Describe how mammal offspring develop before birth and how they are cared for by their parents. (3 marks)

2. Amphibians: Explain the process of metamorphosis in an amphibian life cycle, starting from the egg stage. (3 marks)

3. Insects: Many insects undergo a dramatic change. Describe the stages of an insect life cycle (e.g., egg, larva, pupa, adult). (3 marks)

4. Birds: Explain the importance of incubation for bird eggs and how this differs from how mammals protect their young. (2 marks)

5. Comparison: Why is sexual reproduction important for the survival of a species? Think about inherited characteristics. (2 marks)

Extension challenge: Choose one animal from each group (Mammal, Amphibian, Insect, Bird). Create a comparison table that shows the approximate length of time from fertilisation to birth or hatching for each one.