

Year 5 – *Living things and their habitats* (biology, chemistry, physics)

NC objectives

- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants and animals.

Prior learning

- Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals, including humans)
- Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)

Future Learning

- Reproduction in humans (as an example of a mammal), including the structure and function of the male and female reproductive systems, menstrual cycle (without details of hormones), gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle on the foetus through the placenta. (KS3)
- Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms. (KS3)

Key vocabulary

Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings

Common misconceptions

Some children may think:

- all plants start out as seeds
- all plants have flowers
- plants that grow from bulbs do not have seeds
- only birds lay eggs.

Areas of enquiry	Hook suggestions
<ul style="list-style-type: none"> • Observation over time - How does a bean change as it germinates? • Comparative and fair testing - Which seed shape takes the longest time to fall? • Identifying and classifying - How are dinosaurs and salamanders different/the same? • Pattern seeking - Is there a relationship between a mammal's size and its gestation period? • Researching using secondary sources - What are the differences between the life cycle of an insect and a mammal? 	<p><u>Books</u> Life by Cynthia Rylant</p> <p><u>Scenarios</u> Scenario – Jason says the life cycles of a tiger and a bird are the same. Is he correct? Do you agree? (Research)</p>