



Life Cycles

Year 5

Knowing More, Remembering More

Remembering previous learning:

What is a mammal? Mammals are animals with fur or hair on their bodies. Some can be kept as pets, some live in the wild.

What are the six stages of the human life cycle? Foetus, baby, child, adolescent, adult and elderly adult.

Why does a baby depend on an adult? Babies are dependent on adults for food, warmth and comfort.

Do all babies hit milestones at the same age? Most babies and toddlers hit certain milestones in their first two years of life, such as crawling and walking.

How quickly do children grow and develop? Throughout childhood, children grow and develop at a rapid rate in terms of their mass, height and brain development.

At what age do children become adults? Aged 18.

Are humans mammals? Yes, they are warm-blooded, give birth to live young and feed their offspring on milk.

What is gestation? The amount of time a foetus develops in its mother's womb.

How long is the gestation period of a human? Approximately 9 months.

What are the stages of a frog's life cycle? Eggs (frogspawn), tadpole, young frog (froglet) and adult frog.

What are the stages of a butterfly's life cycle? Eggs, larva, pupa, adult butterfly.

In this unit children will:

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.

Key Learning Steps:

1. Life cycle of mammals
2. Life cycles of amphibians (frogs)
3. Life cycles of insects
4. Life cycles of birds

Working Scientifically:

- 5.9 Record data using scientific diagrams and labels, classification keys, tables, bar and line graphs.
- 5.10 Report and present findings from enquiries, including conclusions.
- 5.11 Begin to identify causal relationships in oral and written forms, such as displays and other presentations.

Vocabulary:

- monotreme
- offspring
- mammary gland
- mammal
- life cycle
- amphibian
- frogspawn
- tadpole
- froglet
- metamorphosis
- larva
- pupa
- chrysalis
- insect
- bird's egg
- hatchling
- nestling
- fledgling
- adult bird

Key Scientists:

Classic

Maria Sibylla Merian (1647 - 1717) specialised in studying butterflies. She was one of the first people to include both eggs and the plants that butterflies lived on in her study of butterfly life cycles.



Knowing More, Remembering More

Knowing more in Y5

What are the four main stages of the life cycle of a mammal? Foetus, young, adolescent and adult.

What is a mammal? An animal with a spine and fur on its body, which gives birth to live young and feeds its young on milk.

How do mammals feed their young? They have mammary glands that produce milk to feed their young.

What are some key characteristics of amphibians? Amphibians are small vertebrates that need water or a moist environment to survive.

What is a tadpole like? Tadpoles have gills to help them to breathe under water, a tail to help them to swim and a mouth to feed.

How long does it take for tadpoles to transform into frogs? Around 14 weeks.

What is an insect? Insects are small animals that have three body sections, six legs, antennae, and usually lay eggs.

What are the four main stages of the life cycle of an insect? Egg, larva, pupa and adult.

What are larvae? Young insects.

What are pupae? Pupae are insects in the stage of development between larvae and adults.

What is metamorphosis? The process by which the young form of an insect or amphibian changes into an adult form.

What are birds? Birds are vertebrates with wings, feathers and a beak.

What are the stages of the life cycle of a bird? There are five stages: egg, hatchling, nestling, fledgling and adult bird.

How do birds reproduce? Birds reproduce by laying eggs.

What happens to an egg after it is laid? Eggs are incubated by parents until they hatch.