

Year 5 Science Knowledge Organiser – Lif Cycles

Vocabulary

1 sexual reproduction	A male and a female produce offspring (plants or animals).	6 larva		The young form of some animals which looks very different from their parents e.g. a caterpillar is the larva of a butterfly.
2 asexual reproduction	Only one parent is needed to produce offspring e.g. spider plants.	7 pupa		A pupa is an insect that is in the stage of development between a larva and an adult. It has a protective covering and does not move.
3 pollination	Pollen from the male part of one plant is taken to the female part of a different plant (often by insects).	8 embryo		This is an unborn or unhatched offspring.
4 fertilisation	This is when the male part of a plant or animal joins with the female part of a plant or animal.	9 insect		A small and often winged animal with six jointed legs and a body formed of a head, thorax, and abdomen e.g. bee.
5 gestation	The time a baby animal spends growing inside its mother's uterus (womb).	10 amphibian		An cold-blooded animal with a backbone which can live on land and in water e.g. frogs, toads and newts.

Key knowledge

Life cycle – a series of changes that happen during the life of an organism. These changes include reproduction (the making of offspring).
In a simple life cycle, the baby looks like a mini-adult. In a complex life cycle, the baby looks completely different and changes shape as it grows.



Metamorphosis – the physical changes an animal goes through to become an adult

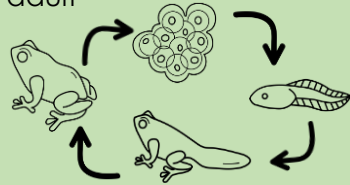
Some animals undergo **complete metamorphosis** which has 4 stages:

Butterfly: egg – larva (caterpillar) – pupa (chrysalis) – adult (butterfly)

Amphibian: egg – larva (tadpole) – froglet (immature frog) – adult (frog)

Some animals undergo **incomplete metamorphosis** which has 3 stages

Grasshopper: egg – nymph (which look a lot like their adult form) – adult



Mammals have backbones, are warm-blooded, have hair or fur and females feed their young with milk. There are 3 types of **mammal**:

Placental mammals – a mammal which grows inside its mother's uterus (womb) e.g. **whale** and human

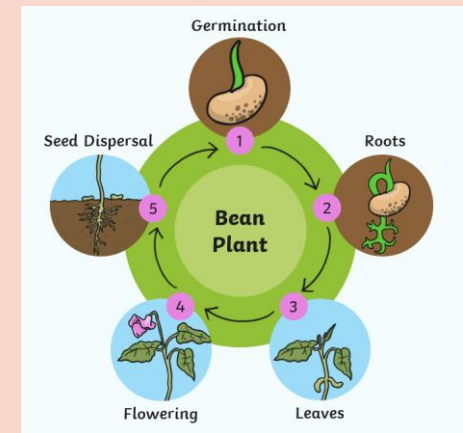
Monotremes – a mammal which lays a soft-shelled egg e.g. echidna and **duck-billed platypus**

Marsupial – a mammal which grows and is suckled in its mother's pouch e.g. **kangaroo** and koala



Plant Reproduction

Plants have a life cycle - they grow from seeds and bulbs into mature plants which produce new seeds and bulbs to restart the cycle.



Flowers are an important part of the life cycle of a plant. This is where pollination and seed formation takes place. Seed dispersal starts here.