

Key Vocabulary

asexual reproduction

Asexual reproduction occurs when only one parent produces offspring that are nearly identical to the parent itself.

fertilisation

Fertilisation is the process of the male and female sex cells joining together.

life cycle

The series of changes a living thing goes through from its beginning to its end is called its **life cycle**.

living organism

Something that is alive is a **living organism**. It can move, use energy and reproduce.

marsupial

A **marsupial** mammal gives birth to partly developed young, which then mature in the mother's pouch.

metamorphosis

Metamorphosis is the process of a living thing completely changing in appearance from one stage of its life to the next.

monotreme

A **monotreme** is a mammal that lays eggs to reproduce.

naturalist

A **naturalist** is someone who is interested in and studies nature and natural history.

Key Knowledge

All living things have a **life cycle** – they are born, grow, reproduce and eventually reach the end of their lives. **Reproduction** happens when male and female sex cells join to create **offspring**. The **life cycle** can vary slightly between different **species**.

Mammals

Most mammals (including humans) are **placental**, meaning the foetus develops inside the body until it is ready to be born. However, some mammals are **monotremes**, which lay eggs, and others are **marsupials**, which carry their babies in a pouch after birth.

A leopard is a **placental** mammal.



A platypus is a **monotreme**.



Koalas are **marsupials**.



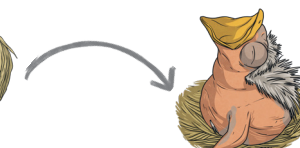
Birds and Reptiles

Birds and most reptiles hatch from eggs.

A snake is a reptile that usually lays eggs.



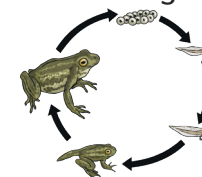
Birds lay eggs in a nest; they hatch when the chick is fully formed.



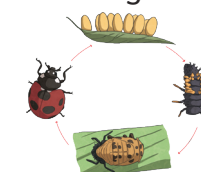
Amphibians and Insects

Amphibians and insects hatch from eggs and often go through **metamorphosis**, changing in appearance as they grow into adults.

The Life Cycle of a Frog



The Life Cycle of a Ladybird

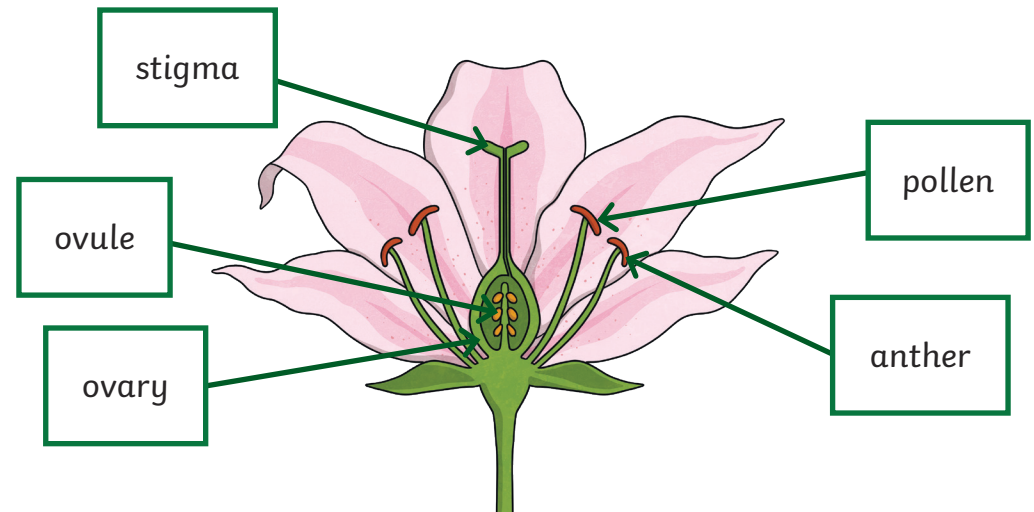


Key Vocabulary

offspring	Offspring are the young of a living organism .
placental	A placental mammal gives birth to live young that have fully developed inside the body.
sexual reproduction	Sexual reproduction occurs when two parents produce offspring that are similar to them but not identical.
species	A species is a group of living things with similar characteristics that can reproduce with other members of the same group to produce fertile offspring .

Sexual Reproduction in Plants

Sexual reproduction in plants usually happens when the pollen from the anther of one flower reaches the stigma of another flower. It then travels to the ovary and joins with an ovule, forming a seed that can grow into a new plant.



Plant Life Cycles

Plants also have a **life cycle** but they reproduce differently to animals. Most plants have both male (pollen) and female (ovule) sex cells and reproduce through **sexual reproduction**. Others reproduce **asexually**.

The Life Cycle of a Sunflower



Asexual Reproduction in Plants

Asexual reproduction in plants happens when a parent produces new plants that are almost identical to itself, without the need for **fertilisation**. This can occur through bulbs, tubers or runners.



A potato is a tuber, strawberry plants grow runners and garlic grows from bulbs.



Disclaimer: This resource is designed to support teaching about biological attributes. You should consider whether this content is appropriate for all learners in your class, especially learners who have DSD/are intersex, or who are transgender.