

What should I already know?

- Animals can be grouped into **vertebrates** (and then further into fish, reptiles, amphibians, birds and mammals) and **invertebrates**
- Some examples of **life cycles** (including those of **plants** and humans)
- The processes of **dispersal**, **fertilisation** and **germination**
- **Reproduction** is one of the seven life processes.
- Parts of a **plant**, their features and what their **functions** are.
- The work of David Attenborough.
- The word **metamorphic** means 'a change of form' (in the context of rocks)

Big Idea this works towards:

- *The different kinds of life, animals, plants and microorganisms, have evolved over millions of generations into different forms in order to survive in the environments in which they live.*
- *Living things are special collections of matter that make copies of themselves, use energy and grow.*

Vocabulary

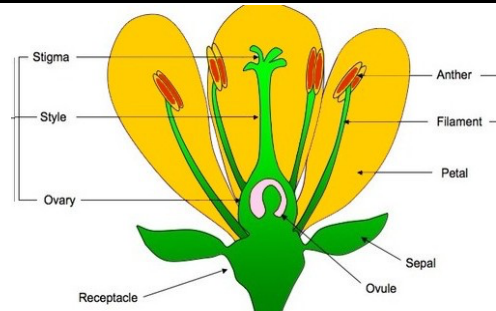
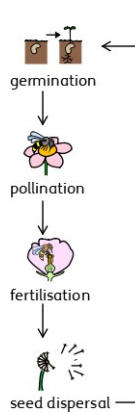
anther	the part of a stamen that produces and releases the pollen
bulb	a root shaped like an onion that grows into a flower or plant
cell	the smallest part of an animal or plant that is able to function independently
dispersed	scattered, separated, or spread through a large area
dissect	to carefully cut something up in order to examine it scientifically
embryo	an unborn animal or human being in the very early stages of development
fertilisation	male and female gametes meet to form an embryo or seed
flower	the part of a plant which is often brightly coloured and grows at the end of a stem
flowering	trees or plants which produce flowers
function	a useful thing that something does
gamete	the name for the two types of male and female cell that join together to make a new creature
germination	if a seed germinates or if it is germinated , it starts to grow
life cycle	the series of changes that an animal or plant passes through from the beginning of its life until its death
mature	When something matures , it is fully developed
metamorphosis	a person or thing develops and changes into something completely different
ovary	a female organ which produces eggs
ovule	a small egg
petal	thin coloured or white parts which form part of the flower
plant	a living thing that grows in the earth and has a stem , leaves , and roots
pollen	a fine powder produced by flowers . It fertilises other flowers of the same species so that they produce seeds
pollination	To pollinate a plant or tree means to fertilise it with pollen . This is often done by insects
reproduction	when an animal or plant produces one or more individuals similar to itself
seed	the small, hard part from which a new plant grows
stigma	the top of the centre part of a flower which takes in pollen
structure	the way in which something is built or made

What will I know by the end of the unit?

What is **reproduction**?

- **Reproduction** is when an animal or plant produces one or more individuals similar to itself:
 - **Sexual reproduction:**
 - requires two parents with **male and female gametes (cells)**
 - will produce **offspring** that is similar to but not identical to the parent
 - **Asexual reproduction:**
 - will produce **offspring** that is identical to the parent
 - requires only one parent

How do **plants reproduce**?



- Male **gametes** can be found in the **pollen**.
- Female **gametes** can be found in the **ovary** (they are called **ovules**).
- **Pollination** occurs when **pollen** from the **anther** is transferred to the **stigma** by bees and other insects.
- The **pollen** then travels down and meets the **ovule**. When this happens, **seeds** are formed - this is called **fertilisation**.
- **Seeds** are then **dispersed** so that **germination** can begin again.
- Some **plants**, such as daffodils and potatoes, can also produce **offspring** using asexual **reproduction**

What are examples of **life cycles**?

- The **life cycles** of mammals, birds, amphibians and insects have similarities and differences.
- One difference is that amphibians and insects go through the process of **metamorphosis**. This is when the structure of their bodies changes significantly as they grow (for example, from tadpole to frog or caterpillar to butterfly).

