



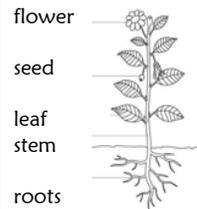
Year 3  
Topic: Plants  
Strand: Biology

### What I should already know.

- Which things are living and which are not.
- The names of the parts of common flowering plants, including trees (including leaves, flowers, fruits, roots, bulbs, seeds, stem, trunks and branches).
- Seeds and bulbs grow into mature plants.
- Plants need water, light and a suitable temperature to grow and stay healthy.
- Plants and animals depend on each other to survive.
- Plants eventually die, they usually make seeds to reproduce and make more plants.
- Some plants die after producing seeds, others live for many generations.

### What will I know by the end of the unit?

The functions of the different parts of flowering plants.



- The **petals** on a **flower** are usually bright – this is to attract bees and other insects so that they can collect **pollen** to make **seeds**.
- The seeds are then able to grow to make new plants, this is called germination.
- Leaves use carbon dioxide and sunlight to make food for the plant.
- The **stem** carries water and other **nutrients** from the roots to the rest of the **plant**. **Leaves** use this water to make food.
- The **stem** also helps the **plant** to stay upright so that the sunlight can reach it easier.
- The **roots** help to anchor the **plant** to the **soil**. They also **absorb** water and **nutrients** from the **soil** for the **stem** to carry to the rest of the **plant**.

What do different plants need to grow?

- air
  - water
  - sunlight
  - **nutrients** from the **soil**
  - room to grow
  - suitable **temperature**
- The amount of these may vary depending on the type of **plant**. For example cacti need less water than other **plants**.

How is the water transported within plants?

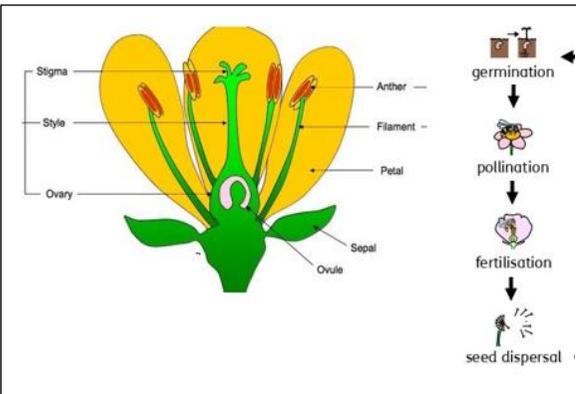
- Water is **transported** from the **soil** by the **roots**.
- It is then **transported** from the **roots** to the **stem** and then to the rest of the **plant**.

### What will I know by the end of the unit?

How do **flowers** help the **life cycle** of **flowering plants**?

- The flower's job is to create new seeds so that new plants can grow.
- Pollination occurs when the anther is transferred to the stigma by bees and other insects.
- When this happens seeds are formed – this is called fertilisation.
- Seeds are then dispersed so that germination can happen again.

### Diagram



### Investigate!

- Compare the effect of different factors in **plant** growth (e.g. the amount of water, the amount of light and the amount of **fertiliser**). Discuss what would make this a fair test.
- Place white carnations in dyed water to observe how plants **transport** water.
- Discover how **seeds** are formed by observing **plant life cycles**.
- **Dissect fruits** to observe their structure and use this to explain how **seeds** are **dispersed**.
- **Dissect a flower** and identify each of the different parts that help with **fertilisation**.

### Vocabulary

<b>Absorb</b>	Soak up or take in.
<b>Anther</b>	The part of a <b>stamen</b> that produces and releases the <b>pollen</b> .
<b>Branches</b>	Parts that grow out from the tree trunk and have <b>leaves</b> , <b>flowers</b> , or <b>fruit</b> growing on them.
<b>Bulb</b>	A root shaped like an onion that grows into a <b>flower</b> or <b>plant</b> .
<b>Carbon dioxide</b>	A gas produced by animals and people breathing out.
<b>Climate Zone</b>	Sections of the Earth that are divided according to the climate. There are three main climate zones; polar, temperate and tropical.
<b>Deciduous</b>	A <b>tree</b> that loses its leaves in the autumn every year.
<b>Dispersed</b>	Scattered, separated, or spread through a large area.
<b>Dissect</b>	To carefully cut something up in order to examine it Scientifically.
<b>Evergreen</b>	A <b>tree</b> or bush which has green <b>leaves</b> all the year round.
<b>Fertilisation</b>	In <b>plants</b> , where <b>pollen</b> meets the <b>ovule</b> to form a <b>seed</b> .
<b>Fertiliser</b>	A substance that is added to soil in order to make <b>plants</b> grow more successfully.
<b>Flowering</b>	<b>Trees</b> or <b>plants</b> which produce <b>flowers</b> .
<b>Function</b>	A useful thing that something does.
<b>Germination</b>	If a <b>seed germinates</b> or if it is <b>germinated</b> , it starts to grow.
<b>Nutrients</b>	Substances that help <b>plants</b> and animals to grow.
<b>Ovule</b>	A small egg.
<b>Petal</b>	Thin coloured or white parts which form part of the <b>flower</b> .
<b>Plant</b>	A living thing that grows in the earth and has a <b>stem</b> , <b>leaves</b> , and <b>roots</b> .
<b>Pollen</b>	A fine powder produced by <b>flowers</b> . It <b>fertilises</b> other <b>flowers</b> of the same species so that they produce <b>seeds</b> .
<b>Pollination</b>	To <b>pollinate</b> a plant or tree means to <b>fertilise</b> it with <b>pollen</b> . This is often done by insects.
<b>Roots</b>	The parts of a <b>plant</b> that grow under the ground.
<b>Seed</b>	The small, hard part from which a new <b>plant</b> grows.
<b>Stem</b>	The thin, upright part of a <b>plant</b> on which the <b>flowers</b> and <b>leaves</b> grow.
<b>Stigma</b>	The top of the centre part of a <b>flower</b> which takes in <b>pollen</b> .
<b>Transported</b>	Taking something from one place to another.
<b>Trunk</b>	The large main <b>stem</b> from which the <b>branches</b> grow.