

## Lower Key Stage 2 – Elveden C of E Primary Academy

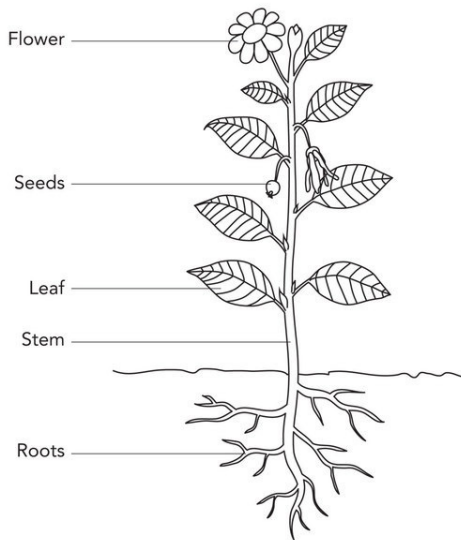
### Knowledge organiser – Plants

#### Know how to...

- Identify and describe the functions of different parts of flowering plants
- Explore the requirements of plants for life and growth and how they vary from plant to plant
- Investigate the way in which water is transported within plants
- Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

#### The function of different parts of 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 to keep the plant upright so that the sunlight can reach it easier.
- The **roots** help to 'anchor' the plant in the soil. They also absorb water and nutrients from the soil for the stem to carry to the rest of the plant.

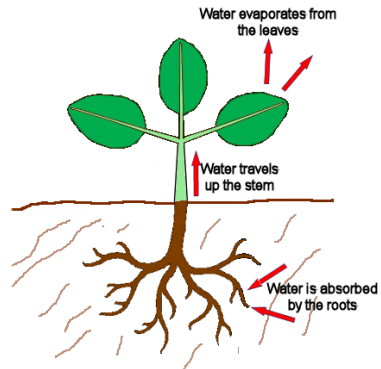


#### Key Vocabulary

<b>absorb</b>	soak up or take in
<b>anther</b>	the part of a stamen that produces and releases the pollen
<b>branches</b>	parts that grow out from the tree trunk and have leaves, flowers, or fruit growing on them
<b>bulb</b>	a root shaped like an onion that grows into a flower or plant
<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 tree that loses its leaves in the autumn every year
<b>dispersed</b>	scattered, separated, or spread through a large area
<b>evergreen</b>	a tree or bush which has green leaves all the year round
<b>fertilisation in plants</b>	where pollen meets the ovule to form a seed
<b>flower</b>	the part of a plant which is often brightly coloured and grows at the end of a stem
<b>fruit</b>	something which grows on a tree or bush and which contains seeds or a stone covered by a substance that you can eat
<b>germination</b>	if a seed germinates or if it is germinated, it starts to grow healthy well and not suffering from any illness
<b>leaf / leaves</b>	the parts of a tree or plant that are flat, thin, and usually green
<b>life cycle</b>	the series of changes that an animal or plant passes through from the beginning of its life until its death
<b>nutrients</b>	substances that help plants and animals to grow
<b>ovule</b>	a small egg
<b>petal</b>	thin coloured or white parts which form part of the flower
<b>pollen</b>	a fine powder produced by flowers. It fertilises other flowers of the same species so that they produce seeds
<b>pollination</b>	to pollinate a plant or tree means to fertilise it with pollen. This is often done by insects
<b>roots</b>	the parts of a plant that grow under the ground
<b>seed</b>	the small, hard part from which a new plant grows
<b>stem</b>	the thin, upright part of a plant on which the flowers and leaves grow
<b>stigma</b>	the top of the centre part of a flower which takes in pollen
<b>temperature</b>	a measure of how hot or cold something is
<b>transported</b>	taking something from one place to another

### How is water transported within plants?

- Water is absorbed 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 do different plants need to grow?

- air
- water
- sunlight
- **nutrients** from the soil
- room to grow
- suitable **temperature**

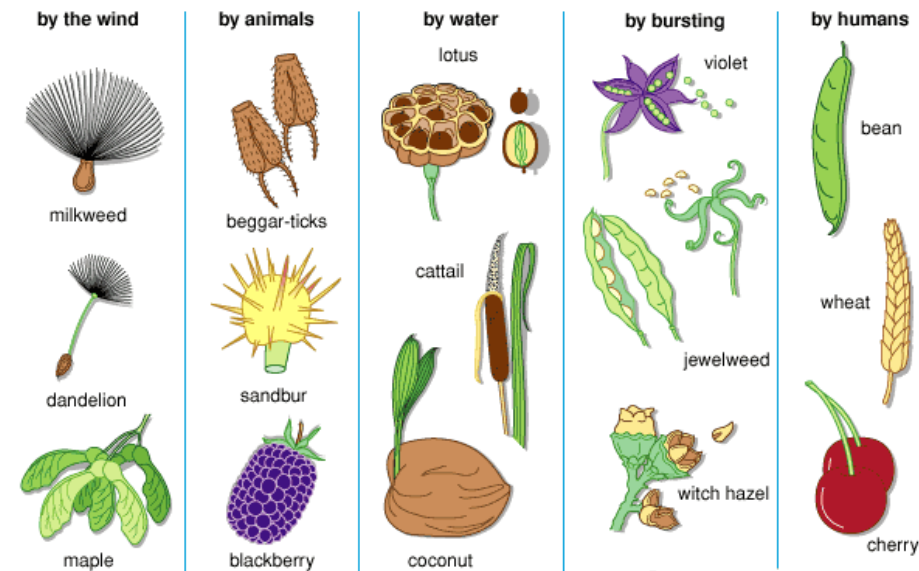


The amount of each of these may vary depending on the type of plant. For example, cacti need less water than other plants.



### Seed dispersal

#### How Seeds Travel



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### How do flowers help in the life cycle of flowering plants?

- The flower's job is to create seeds so that new plant can grow.
- **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.

