

Knowledge Organiser - Theme: Plants

Functions of different plant parts

The main parts of a plant

- Flowers
- Leaves
- Stem/Trunk
- Roots

Flowers - Flowers are the parts of plants that are responsible for making both food and seeds.



- The petals of a flower attract insects for pollination. The flower has male and female parts, which work together to make seeds.

Leaves - Leaves are responsible for catching sunlight. They also allow both air and water to enter the plant.



- Leaves have veins inside them, to allow water and nutrients to flow. There are many different sizes and shapes of leaves, to fit the plant's needs.

Stem/Trunk - The stem/trunk carries the water and nutrients up to the leaves.



- The stem also carries food from the leaves to - the rest of the plant. The stem grows upwards, reaching up for the sun.

Roots - The roots grow into the ground. They are responsible for pulling water and minerals to the plant.



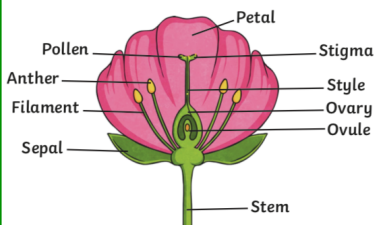
- They expand into the ground to widen the area they can find water. They also help to anchor the plants into the ground.

How plants grow and survive



Plants, like living organisms, have basic needs: a source of nutrient (food), air, light, water, space and optimal temperature in order to grow and reproduce. The amounts needed of each of these requirements varies from plant to plant.

The importance of flowers



- The flower's job is to create seeds so that new plants can be grown.
 - The male part of a flower is called a stamen - it is made up of a filament and an anther. The anther contains pollen.

- The female part of a flower is called a carpel. It is made of a stigma, a style and an ovary.
- When the pollen lands on the stigma to allow fertilisation, pollination occurs.
- Insects are drawn to flowers by bright petals. When they feed on the flower's nectar they are dusted with pollen. They then spread this to other places when they leave.

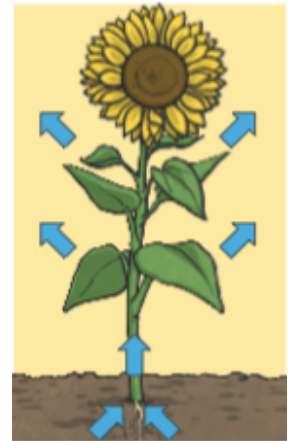
Key Vocabulary

petal	the brightly coloured part of the flower that attracts insects to pollinate
stamen	the male part of a flower containing pollen
carpel	the female part of a flower containing an egg
fertilisation	when pollen and an egg join together to make a seed
dispersal	spreading things over a wide area
pollen	a powdery yellow substance from the male part of a flower
nectar	a sweet fluid in flowers that attract insects
germination	when a seed starts to grow
seed dispersal	a method of moving the seeds away from the parent plant so that the seeds have the best chance of survival
xylem	transports water and nutrients from roots to stems and leaves

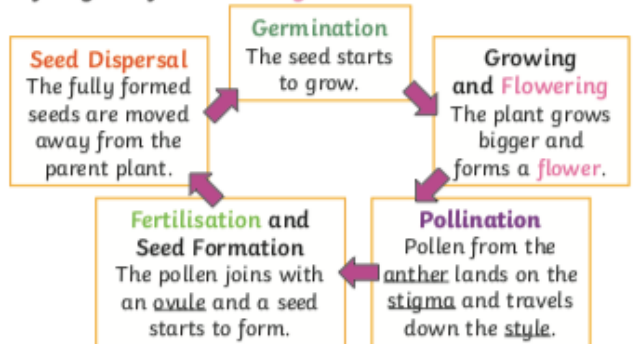
How water moves through a plant

- Water is found in the soil by the roots.
- The water is drawn up from the roots to the stem.
- The water travels up small tubes in the stem called xylem.
- Water reaches the leaves and flowers, keeping them hydrated.
- Water escapes from the plant as vapour (or gas) through tiny holes.

The water is sucked up the stem like water being sucked up through a straw.



Life Cycle of a Flowering Plant



Seed Dispersal

Seeds can be dispersed by:



