

Plants Knowledge Organiser

Science

To grow, plants need:

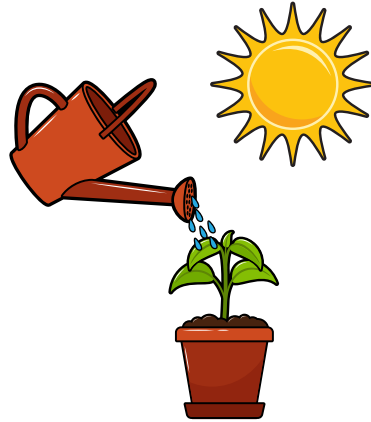
water

nutrients from the soil

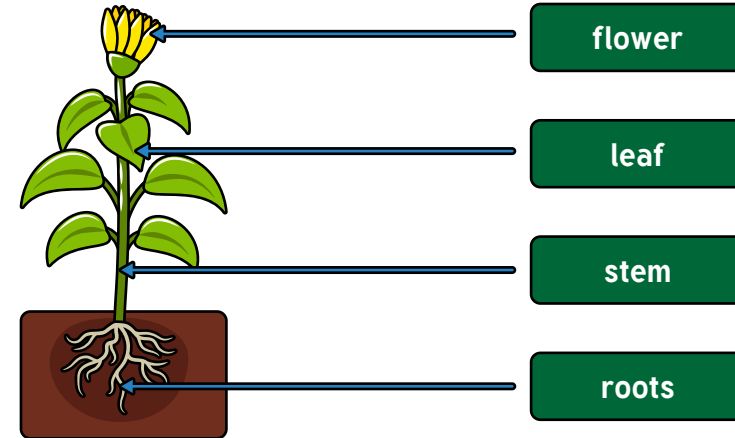
light

air

room to grow



Parts of a plant



Roots

The roots have different jobs:

They **take up water** and **nutrients** from the soil.

They keep the plant steady.

They keep the plant upright.

They '**anchor**' the plant.



Stem

The job of the stem is to **transport water** and **nutrients** from the soil to the leaves, flower or fruit through tiny, thin tubes called **xylem**.



Flower

The flower's main job is to create new seeds.

Petal

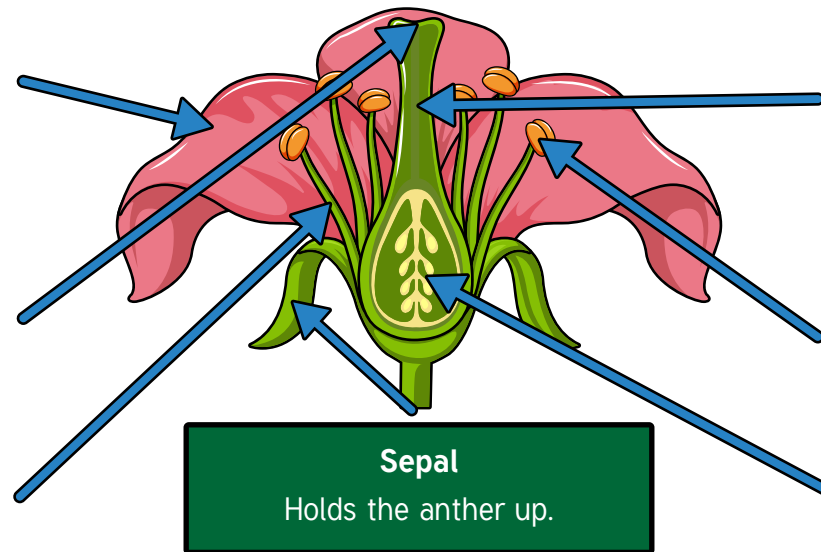
Brightly coloured to attract insects.

Stigma

Sticky to catch the pollen grains.

Filament

Holds the anther up.



Sepal

Holds the anther up.

Style

Holds up the stigma.
Pollen travels down it to the ovary.

Anther

Contains the pollen.

Ovary

Where the seeds are formed.

Pollination

To make seeds, pollination needs to happen.

Pollination is when pollen from the **anther** is **transferred** to the **stigma**.

This can happen in different ways:

Wind can blow pollen from one plant to another.

Pollinators such as bees and butterflies visit flowers to drink nectar. When they are there, pollen sticks to them and they then transfer that pollen to the next flower.

Once the **pollen** is **transferred** to the **stigma**, it travels down the **style** to the **ovary** where the **seed** grows.

Seed dispersal

The seeds that have grown need to be dispersed so they can grow into new plants.

This can happen in different ways:

Explosion – some plants explode, making the seeds scatter.

Water – some plants that grow near water have seeds that float. Water will carry the seed until it is washed up.

Animals – some animals eat the fruit containing the seeds. When the animal excretes the waste, they also get rid of the seeds.

Wind – some seeds are light enough to be blown away and carried by the wind.