

Knowledge Organiser

Science - Plants

What should I already know?

- Observe and describe how seeds and bulbs grow into mature plants.
- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

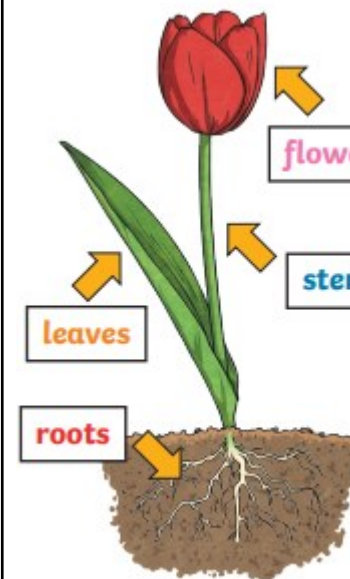
Key Vocabulary

Photosynthesis	How the plant makes its own food
Pollen	A fine powder produced by flowers. It fertilises other flowers of the same species so that they produce seeds.
Insect pollination	The process in which an insect gets pollen from a flower and transfers it to another flower.
Wind pollination	The process when pollen is transported by air currents from one individual plant to another.
Seed formation	Seeds can develop after pollination. They can be found in berries or fruits.
Seed dispersal	A method of moving the seeds away from the parent plant so that the seeds have the best chance of survival. Can be moved by wind, animals or water.
Air	A mixture of different gases that helps humans and plants survive.
Nutrients	These substances are needed by living things to grow and survive. Plants get nutrients from the soil and also make their own food in their leaves.
Minerals	A naturally occurring nutrient found in the soil (for a plant)
Soil	A mixture of minerals and organic material that covers much of Earth's surface.
Absorb	Soak up or take in.
Transport	Taking something from one place to another.

Sticky Knowledge

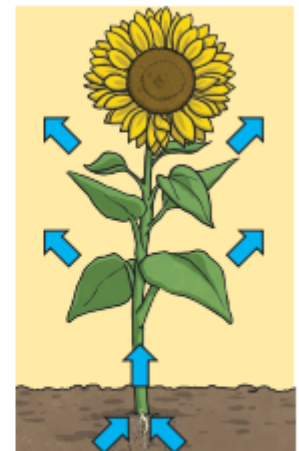
- Many plants, but not all, have roots, stems/trunks, leaves and flowers/blossom.
- The roots absorb water and nutrients from the soil and anchor the plant in place.
- The stem transports water and nutrients/minerals around the plant and holds the leaves and flowers up in the air to enhance photosynthesis, pollination and seed dispersal.
- The leaves use sunlight and water to produce the plant's food. Some plants produce flowers which enable the plant to reproduce.
- Pollen, which is produced by the male part of the flower, is transferred to the female part of other flowers (pollination). This forms seeds, sometimes contained in berries or fruits which are then dispersed in different ways.
- Different plants require different conditions for germination and growth.

Useful Diagrams



How Water Moves through a Plant

1. The **roots** absorb water from the soil.
2. The **stem** transports water to the **leaves**.
3. Water **evaporates** from the **leaves**.
4. This **evaporation** causes more water to be sucked up the **stem**.



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