

Science Knowledge Organiser

Southwold Primary School



Topic: Plants

Year: 3

Strand: Biology

What should I already know?

- Plants need a number of different things in order to grow, including water and nutrients, light, the right temperature, space and time.
- Plants begin life as seeds or bulbs. Seeds do not need sunlight as they have their own food store.
- Water and oxygen allow seeds and bulbs to germinate (start to grow).
- Plants have a life cycle, that includes the seed, seedling and flowering stages.

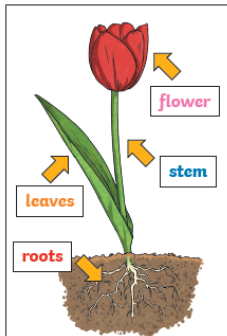
What will I know by the end of this unit?

- Identify and describe the function of the different parts of a flower.
- Explore what plants need to grow and how this can be different for different plants.
- Know how water is transported through a plant.
- Know what role the flowers of a plant play in growing new plants.
- What pollination means.
- Know different ways seeds are spread (= seed dispersal).

Vocabulary

pollen	Fine powder from inside the flower from the male part of the flower.
dispersal	The movement or transport of seeds away from the parent plant i.e. by the wind or by animals/insects.
flower	The part of a plant which allows it to reproduce. It has both male and female parts.
germination	The seed splits and the shoot begins to grow, producing a seedling .
nutrient	The minerals the plants needs to grow. They are taken from the soil through the roots and stem.
photosynthesis	The process of plants growing by taking food and energy from the air and sunlight.
pollination	When pollen is transferred from one flower to another and reaches the female part of the flower.
fertilisation	When the male pollen sticks to the female part of the flower.
seed	Allows a plant to reproduce . New plants grow from seeds .
seedling	A young plant which has just germinated from the seed .

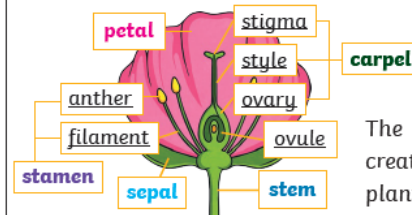
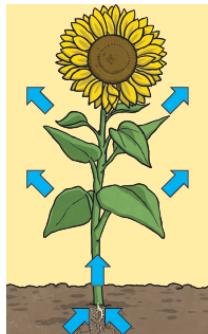
Key Plant Facts



How Water Moves through a Plant

- The **roots** absorb water from the soil.
- The **stem** transports water to the **leaves**.
- Water **evaporates** from the **leaves**.
- 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.



The **flower's** job is to create seeds so that new plants can be grown.

Life Cycle of a Flowering Plant

Seed Dispersal

The fully formed seeds are moved away from the parent plant.

Germination

The seed starts to grow.

Growing and Flowering

The plant grows bigger and forms a **flower**.

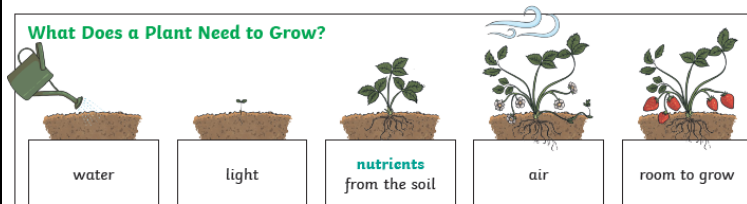
Fertilisation and Seed Formation

The pollen joins with an **ovule** and a seed starts to form.

Pollination

Pollen from the **anther** lands on the **stigma** and travels down the **style**.

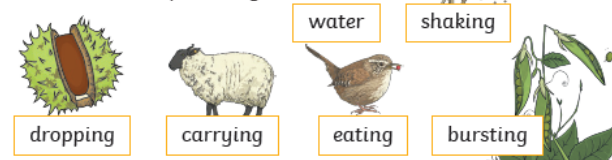
What Does a Plant Need to Grow?



Different plants vary in how much of these things they need. For example, cacti can survive in areas with little water, whereas water lilies need to live in water.

Seed Dispersal

Seeds can be dispersed by:



Working Scientifically

- Do simple fair tests and draw conclusions based on the findings.
- Test a hypothesis and test this through experiments.
- Observational drawings and present using labels.