

Science- Plants - Year 3 Summer Term

Prior Learning:

In **Year 1** you were taught to identify and name a variety of common wild and garden plants, including deciduous and evergreen trees and to identify and describe the basic structure of a variety of flowering plants, including trees.

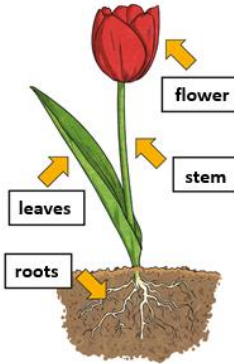
In **Year 2** you were taught to observe and describe how seeds and bulbs grow into mature plants and describe how plants need water, light and a suitable temperature to grow healthily.

Key Vocabulary

dispersal	A method of moving the seeds away from the parent plant so that the seeds have the best chance of survival.
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.
pollination	When pollen is transferred between plants by insects, birds, other animals and the wind.
germination	When a seed starts to grow.
evaporation	When a liquid turns into a gas.

Agnes Arber 1879 - 1960

A British botanist (a scientist who studies plants) who studied the structure of different plants.



Parts of the plant and their functions:

Flower - Flowers are brightly coloured to attract insects and birds. The insects carry pollen to other flowers. Flowers use the pollen to make seeds to grow new plants.

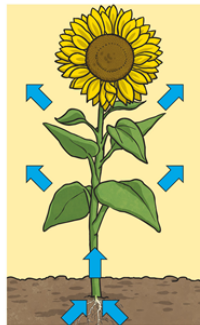
Leaves - The leaves make food for the plant using sunlight and carbon dioxide from the air. They also catch water and direct it down towards the roots.

Stem - Flowering plants have stems, trees and bushes have trunks, but they all do the same job. The stem or trunk holds the plant up. It also carries water and nutrients from the roots to the leaves.

Roots - The roots anchor the plant in the ground. They absorb water and nutrients from the soil.

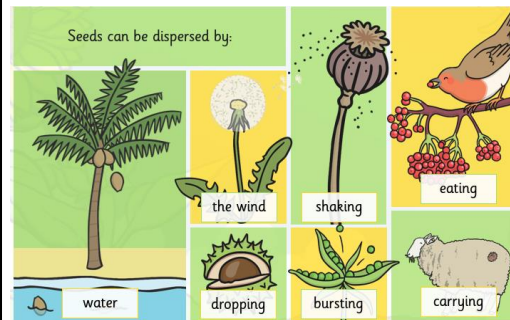
How Water Moves through a Plant

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.

Seed dispersal:



Key Learning

- Plants need water, light, nutrients from the soil, air and room to grow.
- Water is absorbed by the roots, then the stem transports it to the rest of the plant.
- Flowers attract insects to aid pollination.
- Seeds are formed after the flowers are pollinated.
- Seeds are dispersed by a variety of methods to ensure that new plants survive.

Pollination process:

- 1) Flowers attract insects.
- 2) Pollen sticks to the insects.
- 3) The insects move onto other flowers.
- 4) The pollen then sticks to the new flowers they travel to.

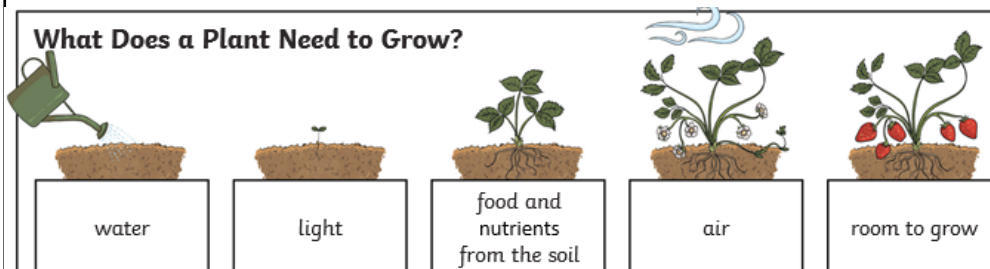
Seed formation:

- 5) After pollination, seeds begin to form in the flower heads.

Seed dispersal:

- 6) These seeds are scattered in 4 ways: Wind dispersal, water dispersal, animal dispersal and explosion.

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.

Can I ...?

Identify, locate and describe the functions of different parts of flowering plants such as roots, stem/trunk, leaves and flowers?

Name the requirements of plants for life and growth?

Explain how water is transported within plants?

Identify the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal?