



Key ideas and information

The seven life processes are movement, respiration, growth, reproduction, excretion, nutrition and sensitivity. Plants do all of these things.

Flowering plants have different parts: roots, stem/trunk, leaves and flowers. Every part of the plant has a specific job to do (see vocabulary below).

Plants need air, light, water, nutrients from soil, and room to grow healthily. The requirements of plants for life and growth vary from plant to plant and can be investigated.

Water and nutrients are absorbed through the roots of a plant. Water is then transported to the different parts of the plant through the stem.

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

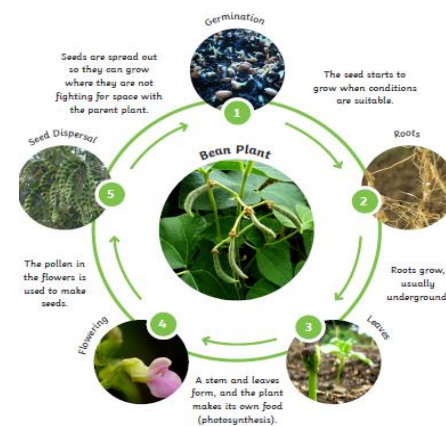
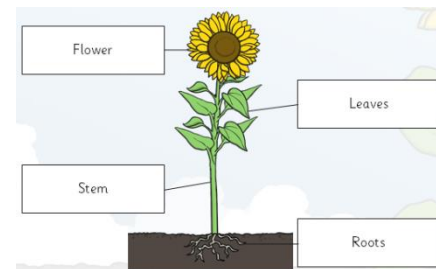
Flowers are made up of lots of parts that work together to make seeds. A flower is made up many different parts, each with a job to do (see vocabulary below).

Pollination occurs when pollen from the anther is transferred to the stigma. Insects like bees and butterflies are attracted to the bright colours of the petals and the sweet scent of the flower. They visit the flower to drink a sweet liquid called nectar. When an insect goes into the flower to drink the nectar, some grains of pollen brush off the anthers onto their body. When the insect visits another flower for more nectar, the grains of pollen transfer from the insect's body to the sticky stigma of the new flower. This is pollination.

The pollen on the stigma then travels down the style towards the ovary.

Once it reaches the ovary, the pollen joins with an ovule.

The ovule can then grow into a seed. This is known as fertilisation.



Scientific Vocabulary

Plant – A plant is a living thing that grows in the earth and has a stem, leaves, and roots. It makes its own food using sunlight and carbon dioxide from the air.

Nutrients – Nutrients are substances that help plants to grow and stay healthy.

Roots – They grow underneath a plant, below the surface of the soil. The roots anchor the plant in the ground. They also absorb water and nutrients from the soil.

Stem/Trunk - Branches, leaves and flowers grow from the stem or trunk. A trunk is woody, and often has a layer of bark around it. The stem or trunk holds the plant up. It also carries water and nutrients from the roots to the leaves.

Flowers - 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.

Nectar – Nectar is a sweet liquid produced by flowers, which bees and other insects collect.

Pollen - Pollen is a fine powder produced by flowers. It fertilises other flowers of the same species so that they produce seeds.

Specific jobs and information about parts of the flower:

Petals – The brightly coloured parts of a flower which attract insects.

Ovary – The part of a plant which contains the ovules (what develops into the seed after fertilisation).

Stamen – Has two parts: the anther and the filament.

Anther – Contains the pollen.

Filament – Holds up the anther.

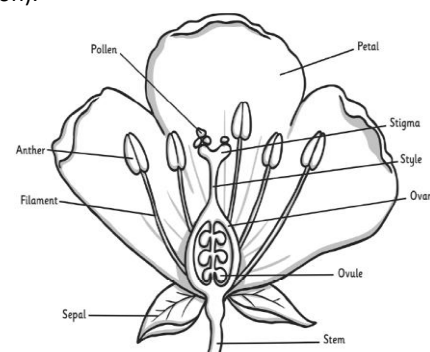
Stigma – Catches grains on pollen.

Style – The 'neck' that holds up the stigma.

Pollination – When an insect visits another flower for more nectar, the grains of pollen transfer from the insect's body to the sticky stigma of the new flower.

Seed dispersal – When seeds are transported from place to place.

Fertilisation – Once the pollen reaches the ovary, the pollen joins with an ovule. The ovule can then grow into a seed.



Working scientifically and enquiry skills

All plants require the same amount of light, air, water, nutrients and space. Research and discuss.

Plants in warm conditions transport water quicker than in cooler conditions. Set up a test to observe over time and draw a conclusion.

Pollinators are imperative in the life processes of a plant. Research and discuss.