



# Y3 Science Knowledge Organiser—Plants



## Key Knowledge

Learn these key facts—key points in red

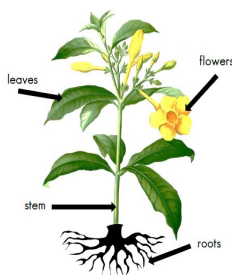
What are the different parts of a plant and what are their functions?

**FLOWERS:** The flowers are often brightly coloured and smell to attract insects. Insects help with the plants reproduction through pollination.

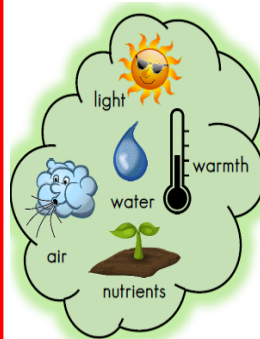
**LEAVES:** The leaves use light from the sun, along with carbon dioxide from the air and water to make food for the plant. This process is called photosynthesis.

**STEM / TRUNK:** The stem carries water and nutrients to different parts of the plant. They keep the plant upright.

**ROOTS:** The roots of a plant take up water and nutrients from the soil. The roots also keep the plant steady and upright in the soil; they "anchor" the plant.



What does a plant need to grow?



Plants need air, water, sun-light, nutrients from the soil, room to grow, sustainable temperature.

The amount of each of these may vary depending on the type of plant. For example, cacti need less water than other plants.

How do plants reproduce?

**Pollination** - Pollen is carried by insects or blown by the wind from one flower to another. This process is called pollination.

**Fertilisation** - Pollen sticks to the flower and then travels to the ovary where it fertilises egg cells (ovules) to make seeds. This process is called fertilisation.

**Seed Dispersal** - The seeds are scattered by animals or the wind. This process is called dispersal. Some of the seeds will grow into new plants.

## Focus Scientist — Katherine Esau

A Russian-born American botanist (1898-1997) who did ground-breaking work on the structure and workings of plants. Her book Plant Anatomy is a classic in the field.



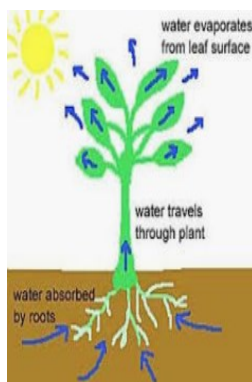
## Key Vocabulary

Understand these key words

Word	Definition
<b>flower</b>	the part of a plant which is often brightly coloured and grows at the end of a stem.
<b>leaves</b>	the parts of a tree or plant that are flat, thin, and usually green.
<b>stem/trunk</b>	the thin, upright part of a plant on which the flowers and leaves grow.
<b>roots</b>	the parts of a plant that grow under the ground.
<b>petal</b>	thin coloured or white parts which form part of the flower.
<b>soil</b>	the loose upper layer of the Earth's surface where plants grow.
<b>function</b>	a useful thing that something does.
<b>reproduction</b>	the process by which a living organism creates copies of itself.
<b>seed</b>	the small, hard part from which a new plant grows.
<b>dispersal</b>	the scattering, separating, or spreading of something over a large area.
<b>pollination</b>	to pollinate a plant or tree means to fertilise it with pollen. This is often done by insects.
<b>fertilisation</b>	in plants, where pollen meets the ovule to form a seed.
<b>absorb</b>	to soak up or take in.
<b>nutrients</b>	substances that help plants and animals to grow.
<b>dissect</b>	to carefully cut something up in order to examine it scientifically.
<b>transportation</b>	taking something from one place to another.
<b>life-cycle</b>	the different stages of life for a living thing.

How is water transported in a plant?

Water is absorbed from the soil by the roots. It is then transported from the roots to the stem and then to the rest of the plant. Leaves use this water to make food.



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