

Key Learning

Explore in detail the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Identify and describe detail the functions of different parts of flowering plants, including roots, stem/trunk, leaves and flowers.

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil and room to grow) and how these vary from plant to plant and the way in which water is transported in plants.

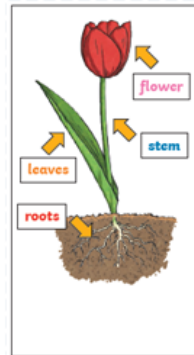
Year 3/4/5 Science: PLANTS SUMMER 1 2024



Morda CE Primary School

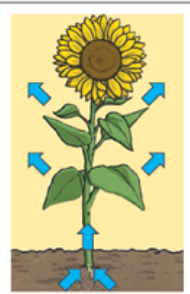
Key Knowledge

What are the parts of a plant?



How Water Moves through a Plant

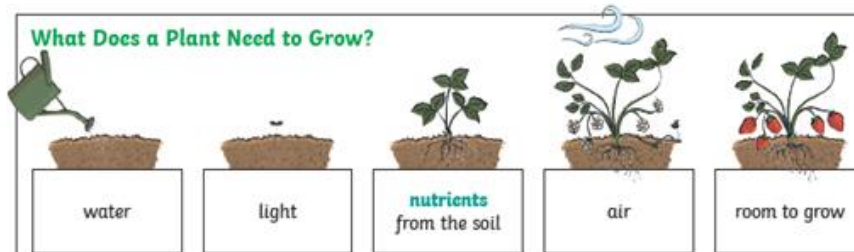
1. The **roots** absorb water from the soil.
2. The **stem** transports water to the **leaves**.
3. Water **evaporates** from the **leaves**.
4. This **evaporation** causes more water to be sucked up the **stem**.



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

What do plants need to grow well?

What Does a Plant Need to Grow?



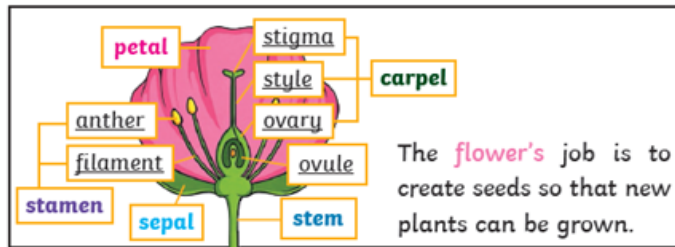
Different plants vary in how much of these things they need. For example, cacti can survive in areas with little water, whereas water lilies need to live in water.

Key Scientific Vocabulary

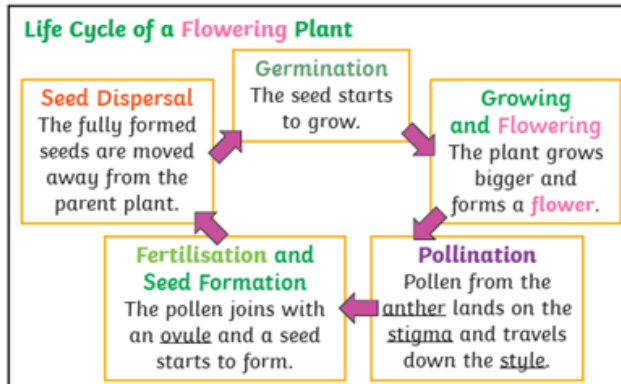
Key Vocabulary

roots	These anchor the plant into the ground and absorb water and nutrients from the soil.
stem	This holds the plant up and carries water and nutrients from the soil to the leaves . A trunk is the stem of a tree.
leaves	These make food for the plant using sunlight and carbon dioxide from the air.
flowers	These make seeds to grow into new plants. Their petals attract pollinators to the plant.
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 .

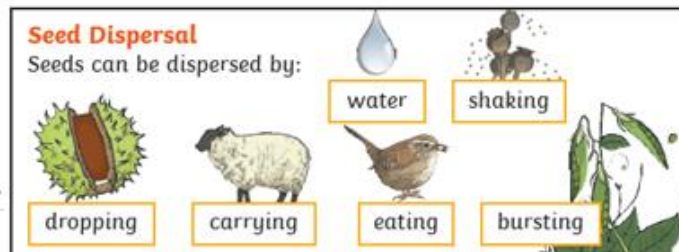
What are the different parts of a flower?



What is the life cycle of a plant?



What are pollination and fertilisation?



Key Vocabulary

fertilisation	When the male and female parts of the flower have mixed in order to make seeds for new plants.
petal	The brightly coloured part of the flower that attracts insects to pollinate the plant.
stamen	The male parts of the flower . The stamen is made up of the anther and the filament. The filament's job is to hold up the anther. The job of the anther is to make the pollen.
carpel (pistil)	The female parts of the flower . Made up of the stigma, style and ovary. The job of the style is to hold up the stigma. The stigma collects the pollen when a pollinator brushes by it. The ovary contains the ovules, which are the part of the flower that gets fertilised and eventually becomes the new seed.
sepal	Leaf-like structures that protect the flower and petals before they open out.
pollination	When pollen (a fine powdery substance produced by a flowering plant) is moved from the male anther of a flower to the female stigma.
pollinator	Animals or insects which carry pollen between plants. Examples include birds, bees and bats.
germination	When a seed starts to grow.
seed dispersal	A method of moving the seeds away from the parent plant so that the seeds have the best chance of survival.

Enquiry types

Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers by labelling the parts of a plant.

Fair-test - To explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) by investigating what plants need to grow well.

Observing over time - Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables by observing and recording plant growth.

Research - Report on findings from enquiries, including oral and written explanations and presentations of results and conclusions.

Research - Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed

Common Misconceptions

Plants are not alive.

Trees, grass, vegetables and weeds are not plants.

Mushrooms and other fungi are plants.

Plants take in everything they need to grow through their roots.

Plants take their energy from the soil through their roots.

Plants take in water through their leaves.

dispersal by understanding
pollination and fertilisation.

Research - Explore the part
that flowers play in the life
cycle of flowering plants,
including pollination, seed
formation and seed
dispersal by ordering and
describing the stages of the
life cycle of a flowering
plant.