

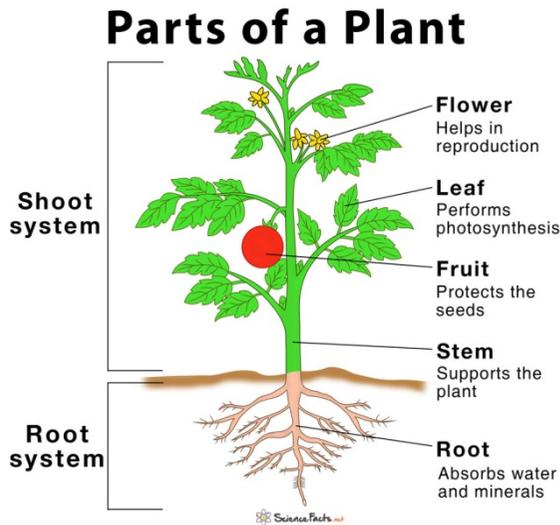
Lower Key Stage 2 - Forest Academy Knowledge organiser - Plants

Know how to...

- Identify and describe the functions of different parts of flowering plants
- Explore the requirements of plants for life and growth and how they vary from plant to plant
- Investigate the way in which water is transported within plants
- Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

The function of different parts of plants

- The **petals** on a flower are usually bright - this is to attract bees and other insects so that they can collect **pollen** to make seeds.
- The **seeds** are then able to grow to make new plants. This is called **germination**.
- Leaves** use **carbon dioxide** and sunlight to make food for the plant - **photosynthesis**.
- The **stem** carries water and other nutrients from the roots to the rest of the plant. Leaves use this water to make food.
- The **stem** also helps to keep the plant upright so that the sunlight can reach it easier.
- The **roots** help to 'anchor' the plant in the soil. They also absorb water and nutrients from the soil for the stem to carry to the rest of the plant.

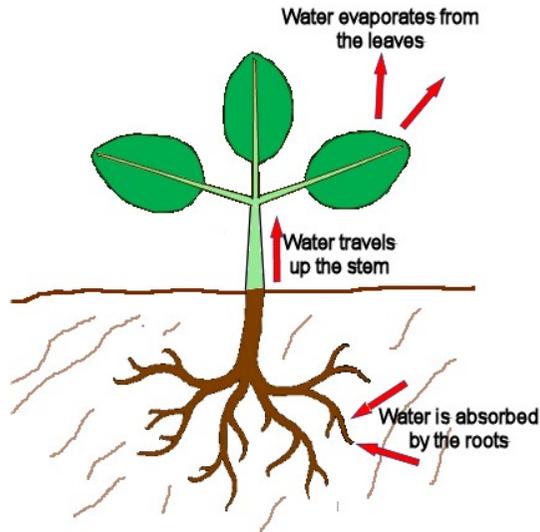


Key Vocabulary

absorb	soak up or take in
anther	the part of a stamen that produces and releases the pollen
branches	parts that grow out from the tree trunk and have leaves, flowers, or fruit growing on them
bulb	a root shaped like an onion that grows into a flower or plant
carbon dioxide	a gas produced by animals and people breathing out
climate zone	sections of the Earth that are divided according to the climate. There are three main climate zones; polar, temperate and tropical.
deciduous	a tree that loses its leaves in the autumn every year
dispersed	scattered, separated, or spread through a large area
evergreen	a tree or bush which has green leaves all the year round
fertilisation in plants	where pollen meets the ovule to form a seed
flower	the part of a plant which is often brightly coloured and grows at the end of a stem
fruit	something which grows on a tree or bush and which contains seeds or a stone covered by a substance that you can eat
germination	if a seed germinates or if it is germinated, it starts to grow healthy well and not suffering from any illness
leaf / leaves	the parts of a tree or plant that are flat, thin, and usually green
life cycle	the series of changes that an animal or plant passes through from the beginning of its life until its death
nutrients	substances that help plants and animals to grow
ovule	a small egg
petal	thin coloured or white parts which form part of the flower
photosynthesis	a chemical reaction that takes place inside a plant, producing food for the plant to survive
pollen	a fine powder produced by flowers. It fertilises other flowers of the same species so that they produce seeds
pollination	to pollinate a plant or tree means to fertilise it with pollen. This is often done by insects
roots	the parts of a plant that grow under the ground
seed	the small, hard part from which a new plant grows
stem	the thin, upright part of a plant on which the flowers and leaves grow
stigma	the top of the centre part of a flower which takes in pollen
temperature	a measure of how hot or cold something is
transported	taking something from one place to another

How is water transported within plants?

- 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.



What do different plants need to grow?

- air
- water
- sunlight
- nutrients from the soil
- room to grow
- suitable temperature



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



Seed dispersal

How Seeds Travel

by the wind



milkweed



dandelion



maple

by animals



beggar-ticks



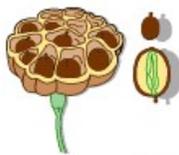
sandbur



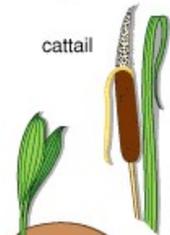
blackberry

by water

lotus



cattail



coconut

by bursting



violet

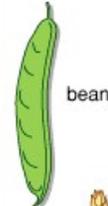


jewelweed



witch hazel

by humans



bean



wheat



cherry

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How do flowers help in the life cycle of flowering plants?

- The flower's job is to create seeds so that new plant can grow.
- **Pollination** occurs when pollen from the anther is transferred to the stigma by bees and other insects.
- The pollen then travels down and meets the ovule.
- When this happens, seeds are formed - this is called **fertilisation**.
- Seeds are then dispersed so that germination can begin again.

