



What should I already know?

Pupils should have been taught in Y2 how to observe and describe how seeds and bulbs grow into mature plants and how to find out why plants need water, light and a suitable temperature in order to grow.

What will I know by the end of this unit:

Key learning

Many plants, but not all, have roots, stems/trunks, leaves and flowers/blossom. The roots absorb water and nutrients from the soil and anchor the plant in place. The stem transports water and nutrients/minerals around the plant and holds the leaves and flowers up in the air to enhance photosynthesis, pollination and seed dispersal. The leaves use sunlight and water to produce the plant's food. Some plants produce flowers which enable the plant to reproduce. Pollen, which is produced by the male part of the flower, is transferred to the female part of other flowers (pollination). This forms seeds, sometimes contained in berries or fruits which are then dispersed in different ways. Different plants require different conditions for germination and growth.

Vocabulary:

Pollen	A powdery yellow substance from the male part of a flower.
Fertilisation	When pollen and an egg join to make a seed,
Nectar	A sweet fluid in flowers that attracts insects.
Dispersal	Spreading things over a wide area.
Pollination	The transfer of pollen from a male part of a plant to a female part of a plant.
Nutrient	Any substance that plants or animals need in order to grow.
Photosynthesis	The process by which a plant uses the energy from the light of the sun to produce its own food.
Germination	To cause a seed to start growing.

Diagrams

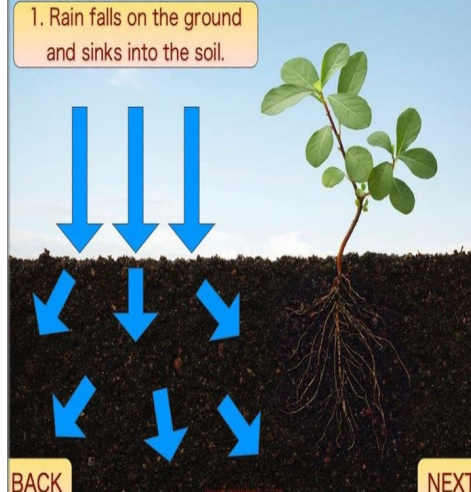
How Water Moves through a Plant

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.

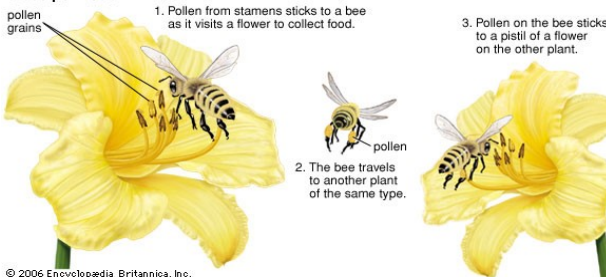
1. Rain falls on the ground and sinks into the soil.



BACK

NEXT

Cross-pollination



Cultural Capital - (including focused text / WOW moment / visitors / trips / fieldwork)

- Look at plants in our local area
- Plants experiment—water travelling up the stem.

Working scientifically:

- Observe what happens to plants over time when the leaves or roots are removed.
- Observe the effect of putting cut white carnations or celery in coloured water.
- Investigate what happens to plants when they are put in different conditions e.g. in darkness, in the cold, deprived of air, different types of soil, different fertilisers, varying amount of space.
- Spot flowers, seeds, berries and fruits outside throughout the year.
- Observe flowers carefully to identify the pollen.
- Observe flowers being visited by pollinators e.g. bees and butterflies in the summer.
- Observe seeds being blown from the trees e.g. sycamore seeds.
- Research different types of seed dispersal.
- Classify seeds in a range of ways, including by how they are dispersed.
- Create a new species of flowering plant.