

Plants

Science Knowledge Organiser Year 3

Key Questions

- What are the functions of the different parts of a plant?
- What do plants and seeds need to grow healthily?
- How is water transported through plants?
- What is pollination?
- How are seeds dispersed?
- What happens in the life cycle of a flowering plant?



Key People

Joseph Banks (1743 - 1820) was an English scientist who studied plants. He helped set up Kew Gardens in London and has 80 species of plants named after him.



Useful web links:

<https://www.bbc.co.uk/bitesize/topics/zy66fg8>

What I should already know

- I have identified and named a variety of common wild and garden plants, including deciduous and evergreen trees.
- I have identified and described the basic structure of a variety of common flowering plants.
- I have observed and described how seeds and bulbs grow into mature plants.
- I have found out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

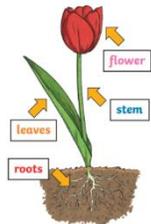
What I will know by the end of the unit

- The roots support the plant in the soil and absorb water and nutrients from the ground
- The stem supports the plant and helps the water and nutrients travel to the leaves
- The leaves use sunlight to make food for the plant
- The flowers are needed to attract insects and to make the pollen and eggs (that are used to make seeds)
- Seeds need warmth, water and oxygen to germinate
- Plants need light, water, air, nutrients from the soil and room to grow
- Pollination is when pollen is transferred from flower to flower by wind or insects
- In the life cycle of a flowering plant, seeds are dispersed, then grow, buds form then flower, once they flower they are pollinated, the flower then dies and seeds are produced once again
- Seeds are dispersed (spread) by wind, animals or water

Scientific Enquiry

During this unit I will:

- Make predictions and carry out a fair test about what a seed needs to germinate
- Investigate what plants need to grow healthily
- Measure and record results
- Explore how water travels through plants
- Observe flowers being pollinated
- Research the main types of seed dispersal



Key Vocabulary

Roots – supports the plant in the soil, absorbs (soaks up) water and nutrients from the ground

stem – supports the plant and helps the water and nutrients travel to the leaves

leaves – uses sunlight to make food for the plant

flower – makes pollen and is brightly coloured to attract insects

nutrients – the food for a plant that they get from the ground

pollen – a fine powdery substance found on the anther of a flower.

pollination – the act of transferring pollen grains from one flower to another to produce seeds. Pollen can be transferred by **insects** or by the **wind**.

seed dispersal – the movement, spread or transport of seeds away from a plant. The three main methods of seed dispersal are **wind dispersal**, **animal dispersal** and **water dispersal**.

life cycle – how a plant develops from a seed to a plant, then back to a seed again

