# Leamington Primary Science Knowledge Organiser
# Year 3 – Plants
# Strand – Biology

## See

- That plants need water, air, space, nutrients and light to be able to grow and stay healthy.
- Photosynthesis is a chemical reaction that takes place inside a plant, producing food for the plant to survive.
- The roots of a plant play a vital role in sucking up the water and nutrients from the soil.

## Interesting Facts

- Bamboo is an extremely rapid growing plant.
- Friedrich Froebel introduced the concept of gardens for children, where they could participate in all aspects of growing, harvesting, and preparing nutritious, seasonal produce.

## What I will learn

What do parts of a flowering plant do?
- I will learn that there are male and female parts of a flower.
- The male part produces pollen and consists of 2 parts: anther and stalk/filament.
- The petals are brightly coloured to attract bees and insects for pollination.

How do plants survive?
- I will explore the requirements of plants for life and growth and how they vary from plant to plant.
- I will investigate the way in which water is transported within plants.

What is the life cycle of a flowering plant?
- I will learn which part of the flowers play an important role in the life cycle of flowering plants, including germination, pollination, seed formation and seed dispersal.
- Germination is the development of a seed into a plant.
- Pollination is the transfer of pollen from a male part of a plant to a female part of a plant, later enabling fertilisation and the production of seeds.
- Seed formation is the formation of the seed in part of the process of reproduction in seed plants.
- Seeds can be dispersed in different ways: Wind dispersal: dandelions have fruits with parachutes of hairs that catch the wind and are blown about. Water dispersal: fruits which float, such as those of the water lily and the coconut palm are carried by water. When animals travel to other areas, they transport

## Important words to help me. (vocabulary)

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| Pollination | The transfer of pollen to a stigma, ovule, flower, or plant to allow fertilisation. |
| Germination | The development of a plant from a seed. |
| Photosynthesis | The process that plants produce their own food. |
| Seed dispersal | The movement, spread or transport of seeds away from the parent plant. |
| Anther | The male part of a plant. |
| Pistil | The female part of a plant. |
| Fertilisation | The action or process of fertilising an egg or a female animal or plant. |
| Life cycle | The series of life changes in an animal, plant or human. |
| Flower | The part of the plants that blossoms. |
| Bulb | A rounded underground storage organ present in some plants. |
| Fertiliser | A chemical or natural substance added to soil or land to increase its fertility. |
| Nutrients | A substance that provides nourishment essential for the maintenance of life and for growth. |
| Seed formation | Seed formation begins with the combination of a male and female gamete: a process known as fertilization. |
| Classify | This is the grouping together of similar species of plant, animal and other organisms. This means to group similar species together compared by their similarities and differences. |
| Water | An explanation of the conditions needed for plant growth, with particular emphasis on water requirements. |

## Ideas for Scientific Enquiry

**Classifying and Grouping**
- Explore the male and female parts of a flowering plant.

**Secondary Sources**
- Use secondary sources to gain further information on the jobs of the different parts of the plant.

**Observation Overtime**
- Observe the changes overtime as a plant grows in different conditions.

**Pattern Seeking**
- Investigate how seeds can be dispersed in different ways such as through wind, water, animals and explosion.
- Discover the importance of the role of the weather in the reproduction of plants and flowers.
- Explore the different stages of the life cycle of a plant in detail. Including germination, pollination, seed formation and seed dispersal.

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| | seeds. When animals excrete their waste, seeds end up in other locations. | | |