

Science Topic:	Plants	Year 3	Term:
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What should I already know and when did I learn this?

- I know how seeds and bulbs grow into mature plants. (Y2 - Plants)
- I have found out and described how plants need water, light and a suitable temperature to grow and stay healthy. (Y2 - Plants)







What will I know by the end of the unit?

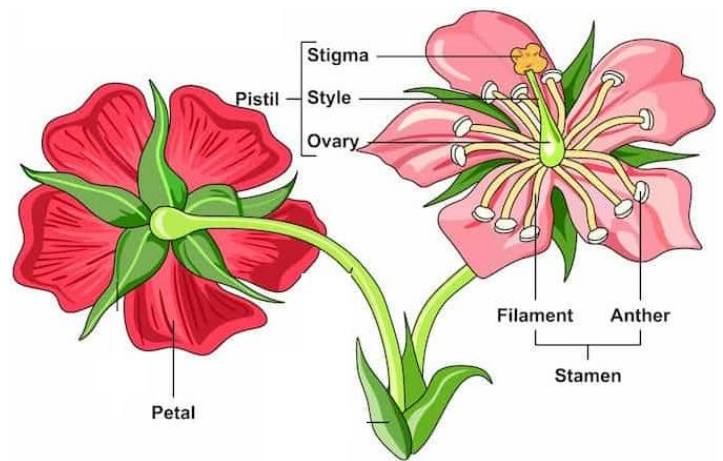
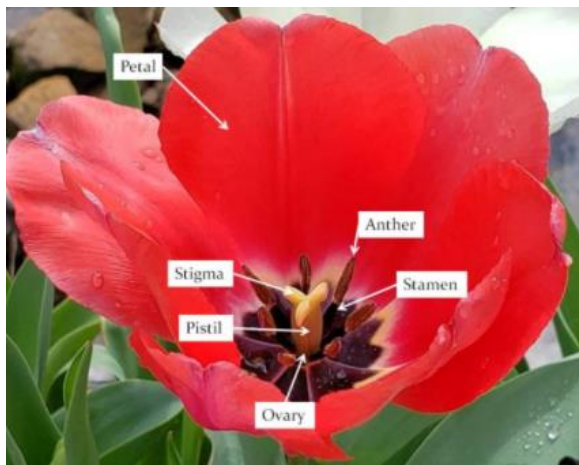
- I can identify and describe the functions of different parts of flowering plants: roots; stem/trunk; leaves; and flowers.
- I can explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.
- I can investigate the way in which water is transported within plants.
- I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Key Vocabulary

Nutrients	Goodness that plants need to grow healthily – they get nutrients from the soil (sometimes people add nutrient fertiliser to soil to help plants grow).	Stamen	The male part of a flower. The stamen is made up of the anther and the filament. The filament holds up the anther. The anther makes pollen.
Stem	Holds the plant up and carries water from the roots to the rest of the plant.	Carpel (pistil)	The female part of a flower. Made up of the stigma, style and ovary. The style holds up the stigma that collects the pollen. The ovary contains the ovules that get fertilised and become the new seed.
Roots	These hold the plant in the ground and soak up water and minerals from the soil.	Pollination	For a plant to grow a new seed, pollen needs to get to its carpel from another plant.
Flower	They have colour and smell to attract insects. Seeds are formed here.	Fertilisation	When the pollen joins the egg of the new flower, a seed or many seeds are formed.
Petal	The brightly coloured part of the flower that attracts insects to pollinate the plant.	Seed dispersal	Spreading seeds over a wide area.
Leaves	These make food for the plant and oxygen using sunlight and carbon dioxide from the air.	Germination	The stage of plant growth where the seed begins to sprout.

Key Knowledge

<p><u>Roots</u></p> <p>Roots grow underneath a plant, below the surface of the soil. They are usually long and covered in small hairs. The roots anchor the plant in the ground.</p>		<p><u>Stem or trunk</u></p> <p>Branches, leaves and flowers grow from the stem or trunk. It holds the plant up. It also carries water and nutrients from the roots to the leaves.</p>	
<p><u>Leaves</u></p> <p>The leaves make food for the plant using sunlight and carbon dioxide from the air.</p>		<p><u>Flowers</u></p> <p>Flowers are brightly coloured to attract insects and birds. The insects carry pollen to the flowers. Flowers use the pollen to make seeds to grow new plants.</p>	
<p>Plants need air, water, sunlight, nutrients from soil, room to grow and warmth. The amount varies depending on the type of plant. Cacti need less water than other plants.</p>		<p>The roots take up water from the soil. The water travels through the stem of the plant to the leaves.</p>	



Key Knowledge Life Cycle of Plants

Life Cycle of a Flowering Plant

Seed Dispersal

The fully formed seeds are moved away from the parent plant.

Germination

The seed starts to grow.

Growing and Flowering

The plant grows bigger and forms a flower.

Fertilisation and Seed Formation

The pollen joins with an ovule and a seed starts to form.

Pollination

Pollen from the anther lands on the stigma and travels down the style.



The insect goes to the first flower looking for nectar. Pollen gets stuck to it. When it goes to another flower the pollen gets stuck to that flower.



The wind can blow pollen to one flower from another.

Seed Dispersal

Seeds can be dispersed by:



dropping



carrying



water



eating



shaking



bursting



Investigate

- Explain the function of the parts of a flowering plant.
- Describe the life cycle of flowering plants, including pollination, seed formation, seed dispersal, and germination.
- Give different methods of pollination and seed dispersal, including examples.
- Look at the features of seeds to decide on their method of dispersal. (dandelion clocks, sycamore seeds, conkers, acorns, blackberries)
- Draw and label a diagram of a flowering plant to show its parts, their role and the method of pollination and seed dispersal.