

Science Focus: Plants	Year Group: 3	Spring Term
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Key Knowledge:

Overview

- In order to grow, a **plant** needs air water, sunlight, **nutrients** from the soil, room to grow and a suitable temperature.
- The **flowers** job is to create new **Seeds** so that new **plants** can grow.
- **Plants** and animal depend on each other in order to survive.

The functions of the different parts of **Flowering plants**.

- **Petals** on a flower are usually bright in order to attract bees and insects that collect pollen.
- **Seed** sgrow to make new **plants**. This is called germination.
- Leaves use carbon dioxide to make food for the **plant**. This is called **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 it can get sunlight easier.
- The root anchors the **plant** to the ground and absorbs water and **nutrients** for the **stem** to carry to the rest of the **plant**.

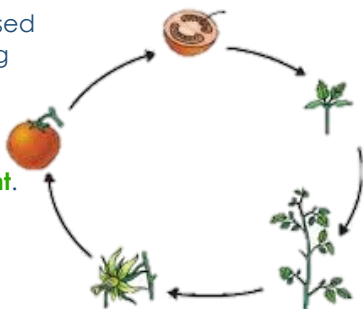


How is water transported through a plant?

- The **roots** absorb water from the soil.
- The **stem** then transports water from the **roots** to the **leaves**.
- Water evaporates from the **leaves** causing more water to be sucked up through the **stem**.
- The water is sucked up through the **stem** like water being sucked through a straw.

Life cycle of a flowering plant.

- A new **plant** begins by growing and forming a flower.
- **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.
- **Seeds** can be dispersed by water, wind, being carried by animals, dropping, being eaten by animals or bursting out of a **plant**.



Key Vocabulary:

Flowering - Trees or plants, which produce flowers.

Plants- A living thing that grows and has a stem, leaves and roots.

Nutrients- Substances that helps plants and animals to grow.

Reproduction- The process of producing more plants.

Transportation - Taking seeds from one place to another

Dispersal - Scattering, separating or spreading seeds through a large area.

Light- Plants get this from the sun and use it in order to make its own food (photosynthesis).

Evergreen - A plant or tree that has green leaves all year round.

Deciduous- A tree that loses its leaves in the autumn every year.

Fertilisation- In plants, where pollen meets the ovule to form a seed.

Pollination- To pollinate a plant or tree means to fertilise it with pollen.

Flowers- The part of a plant that is brightly coloured and grows at the end of a stem.

Photosynthesis- The process in which green plants use sunlight in order to make their own food.

Anther - The part of a flower that produces and releases pollen.

Leaves - The parts of a tree/plant that are flat, thin and usually green. They absorb sunlight as part of photosynthesis.

Germination - If a seed germinates or it is germinated, it starts to grow.

Stem - The upright part of a plant which offers support.

Seed - A small, hard part from which a new plant grows.

Roots- The parts of a plant that grows underground and absorbs nutrients.

Ovule- A small egg.

Petal - The brightly coloured parts of the flower that attracts insects to pollinate the plant.

Stigma - The top of the centre part of a flower that is sticky and takes in pollen.

Sepal - Leaf-like structures that protect the flowers and petals before they open out.

Stamen - The male parts of the flower.

Pistil - The female parts of the flower.

Possible Experiments:

- Dissect a flower and identify each of the different part that help with fertilisation.
- Discover how seeds are formed by observing the life cycle of plants.
- Plan and carry out a fair test looking at the effect of light on plant growth
- Investigate cut tree trunks to determine the age of a tree and how fast It grew.
- Plan and carry out a fair test looking at the effect of fertiliser when growing plants.
- Provide the conditions for germination and observe a variety of seeds over time.
- Place white carnations in water to observe how plants transport water.
- Dissect fruits to observe their structure and use this to explain how seeds are dispersed.

Diagrams and Symbols:

