Theale Primary School

Science

Topic: Plants

Year: 3

Key Knowledge

What do plants need to grow?

- air
- water
- sunlight
- **nutrients** from the **soil**
- room to grow
- suitable temperature

The amount of each of these may vary depending on the type of plant. For example, cacti need less water than other plants.

Functions of the different parts of flowering plants.

Roots: anchor the plant in the soil. They **absorb** water and **nutrients** from the soil.

Stem: transports water and other **nutrients** around the plant. Helps to keep the plant upright so that the sunlight can reach it easier.

Leaves: make food for the plant using **carbon dioxide,** sunlight and water.

Flower: makes **seeds** so that new plants can grow.

Petals: usually bright to attract bees and other insects which **pollinate** the flowers to make **seeds.**

How is water transported within plants?

- Water is **absorbed** from the **soil** by the **roots.**
- It transported to the **stem**, then to the rest of the **plant**.

How do flowers help in the life cycle of flowering plants?

- **Flowers** make **seeds** so that new **plants** can grow.
- To make seeds, pollen from one flower must be transferred to another flower. This is called **pollination**. Pollen can be transferred by bees, other insects, animals or even the wind.

How are seeds dispersed?

Seeds are transported (dispersed) away from the parent plant so that they have room to grow. Different seeds are dispersed in different ways.

Wind (parachute) | Wind (helicopter) | Water | Explosion

Animal (eaten) | Animal (buried) | Animal (attached)

Investigate

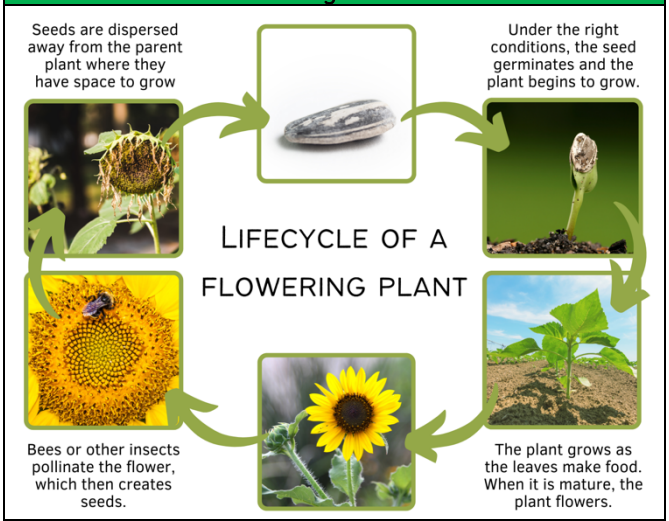
Compare the effect of different factors in **plant** growth (e.g. amount of water, amount of light, temperature). Discuss what would make this a fair test.

Use dyed water to observe how plants **transport** water.

Observe **plant lifecycles** and discover how **seeds** are formed.

Dissect **fruits and seeds** to observe their structures and use this to explain how **seeds** are **dispersed**.

Diagram



Key Vocabulary

absorb	Soak up or take in.
carbon dioxide	A gas produced when animals and people breathe out. Used by plants to make food.
deciduous	A tree that loses its leaves every autumn.
dispersed	Scattered, separated or spread over a large area
evergreen	A tree or bush with green leaves all year round.
fertilisation	A process necessary for reproduction to occur. In plants, fertilisation happens after pollination.
flower	The part of a plant which is often brightly coloured and grows at the end of a stem.
fruit	The part of a plant which contains the seeds, covered by a substance that you can often eat.
germination	The stage of plant growth when the **seed** begins to sprout.
leaf/ leaves	The parts of a plant that are flat, thin and usually green, which make food for the plant.
lifecycle	A series of changes that happens to a living thing.
mature	Fully developed.
nutrients	Substances that help plants and animals to grow and stay healthy.
petals	Thin coloured or white parts which form part of the flower. Often bright colours to attract insects.
pollen	A fine powder produced by flowers. It fertilises other flowers of the same species so that they produce seeds.
pollination	The transfer of pollen between plants of the same species by insects, animals or the wind.
roots	The underground parts of a plant that take in water and nutrients from the soil.
seed	The small, hard part from which a new plant grows.
stem	The thin, upright part of a plant on which the flowers and leaves grow.