

Dog Kennel Hill Primary School - Science

Topic: Plants

Year: 3

Strand: Biology

What should I already know?

- Which things are living and which are not.
- A variety of common wild and garden plants, including deciduous and evergreen trees and how to identify them.
- The structure of common flowering plants, including trees (including leaves, flowers, fruits, roots, bulbs, seeds, stem, trunks and branches)
- Seeds and bulbs grow into mature plants
- Plants need water, light and a suitable temperature to grow and stay healthy.
- Different vegetation belts and climate zones around the world
- Plants and animals depend on each other to survive.

What will I know by the end of the unit?

The functions of the different parts of flowering plants.



- The **petals** on a **flower** are usually bright - this is to attract bees and other insects so that they can collect **pollen** to make **seeds**.
- The **seeds** are then able to grow to make new **plants**. This is called **germination**.
- **Leaves** use **carbon dioxide** and sunlight to make food for the **plant**.
- 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 the sunlight can reach it easier.
- The **roots** help to 'anchor' the **plant** in the **soil**. They also **absorb** water and **nutrients** from the **soil** for the **stem** to carry to the rest of the **plant**.

What do different 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**.



How is water transported within plants?

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

How do **flow-ers** help in the **life cycle** of **flow-ering plants**?

- The **flower's** job is to create **seeds** so that new **plants** can grow.
- **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.

Vocabulary

Anther	the part of a stamen that produces and releases the pollen
Branches	parts that grow out from the tree trunk and have leaves, flowers, or fruit growing on them
Bulb	a root shaped like an onion that grows into a flower or plant
Carbon dioxide	a gas produced by animals and people breathing out
Climate zone	sections of the Earth that are divided according to the climate. There are three main climate zones; polar, temperate and tropical.
Deciduous	a tree that loses its leaves in the autumn every year
Dispersed	scattered, separated, or spread through a large area
Dissect	to carefully cut something up in order to examine it scientifically
Evergreen	a tree or bush which has green leaves all the year round
Fertilisation	in plants , where pollen meets the ovule to form a seed
Fertiliser	a substance that is added to soil in order to make plants grow more successfully
Flower	the part of a plant which is often brightly coloured and grows at the end of a stem
Flowering	trees or plants which produce flowers
Fruit	something which grows on a tree or bush and which contains seeds or a stone covered by a substance that you can eat
Germination	if a seed germinates or if it is germinated , it starts to grow
Leaf / leaves	the parts of a tree or plant that are flat, thin, and usually green
Life cycle	the series of changes that an animal or plant passes through from the beginning of its life until its death
Mature	When something matures , it is fully developed
Nutrients	substances that help plants and animals to grow
Ovule	a small egg
Petal	thin coloured or white parts which form part of the flower
Plant	a living thing that grows in the earth and has a stem, leaves, and roots
Pollen	a fine powder produced by flowers . It fertilises other flowers of the same species so that they produce seeds
Pollination	To pollinate a plant or tree means to fertilise it with pollen . This is often done by insects
Roots	the parts of a plant that grow under the ground
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
Stigma	the top of the centre part of a flower which takes in pollen
Structure	the way in which something is built or made
Temperature	a measure of how hot or cold something is
Tree	a tall plant that has a hard trunk, branches, and leaves
Trunk	the large main stem from which the branches grow
Wild	animals or plants that live or grow in natural surroundings and are not looked after by people

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Question 1

Question 2

Question 3

Question 4

Question 5