

# 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 <b>stamen</b> that produces and releases the <b>pollen</b>
Branches	parts that grow out from the tree trunk and have
Bulb	a root shaped like an onion that grows into a
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 <b>tree</b> that loses its leaves in the autumn every
Dispersed	scattered, separated, or spread through a large
Dissect	to carefully cut something up in order to examine it scientifically
Evergreen	a <b>tree</b> or bush which has green <b>leaves</b> all the year
Fertilisation	in <b>plants</b> , where <b>pollen</b> meets the <b>ovule</b> to form a <b>seed</b>
Fertiliser	a substance that is added to soil in order to make <b>plants</b> grow more successfully
Flower	the part of a <b>plant</b> which is often brightly col-
Flowering	<b>trees</b> or <b>plants</b> which produce <b>flowers</b>
Fruit	something which grows on a <b>tree</b> or bush and which contains <b>seeds</b> or a stone covered by a substance that you can eat
Germination	if a <b>seed germinates</b> or if it is <b>germinated</b> , it
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 <b>plant</b> passes through from the beginning of its life until its death
Mature	When something <b>matures</b> , it is fully developed
Nutrients	substances that help <b>plants</b> and animals to grow
Ovule	a small egg
Petal	thin coloured or white parts which form part of
Plant	a living thing that grows in the earth and has a <b>stem</b> , <b>leaves</b> , and <b>roots</b>
Pollen	a fine powder produced by <b>flowers</b> . It <b>fertilises</b> other <b>flowers</b> of the same species so that they produce <b>seeds</b>
Pollination	To <b>pollinate</b> a plant or tree means to <b>fertilise</b> it
Roots	the parts of a <b>plant</b> that grow under the ground
Seed	the small, hard part from which a new <b>plant</b>
Stem	the thin, upright part of a <b>plant</b> on which the <b>flowers</b> and <b>leaves</b> grow
Stigma	the top of the centre part of a <b>flower</b> which
Structure	the way in which something is built or made
Temperature	a measure of how hot or cold something is
Tree	a tall <b>plant</b> that has a hard <b>trunk</b> , <b>branches</b> , and
Trunk	the large main <b>stem</b> from which the <b>branches</b> grow
Wild	animals or <b>plants</b> that live or grow in natural surroundings and are not looked after by people