

Sholing Junior 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 I will know by the end of the Unit

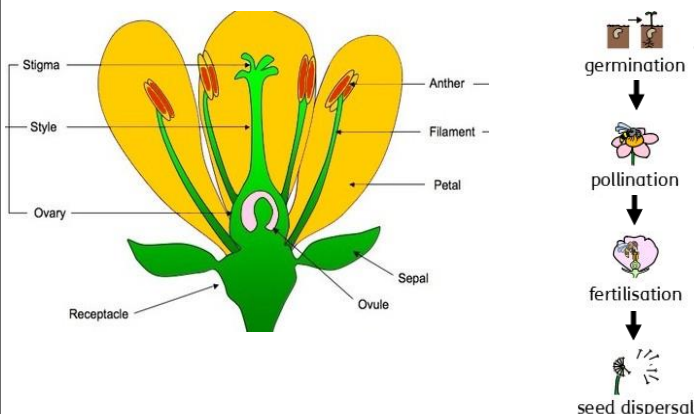
I will be able to:

- **Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.**
- **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.**
- **Investigate the way in which water is transported within plants.**
- **Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.**

INVESTIGATE!

We will be introduced to the relationship between structure and function: the idea that every part has a job to do. We will explore questions that focus on the role of the roots and stem in nutrition and support, leaves for nutrition and flowers for reproduction.

We might work scientifically by: comparing the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser; discovering how seeds are formed by observing the different stages of plant life cycles over a period of time; looking for patterns in the structure of fruits that relate to how the seeds are dispersed. They might observe how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.



Vocabulary

absorb	soak up or take in
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.
common	Something that is found in large numbers or it happens often
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
function	A useful thing that something does
garden	A piece of land next to a house, with flowers, vegetables, other plants, and often grass
germination	If a seed germinates or if it is germinated , it starts to grow
healthy	Well and not suffering from any illness
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
transported	Taking something from one place to another
tree	A tall plant that has a hard trunk, branches, and leaves
trunk	The large main stem from which the branches grow
vegetation	Plants, trees and flowers
wild	Animals or plants that live or grow in natural surroundings and are not looked after by people

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