

Topic: Plants

Phase: KS1

Strand: Biology

What should I already know?

- The similarities and differences in relation to living things.
- The features of their own immediate environment and how environments might vary from one another.
- To be able to make observations of animals and plants and explain why some things occur and talk about changes. (Early Learning Goal)
- The main changes across the four seasons. (Y1 - Seasonal changes)

At the end of the unit, I will be able to:

- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees.
- Observe and describe how seeds and bulbs grow into mature plants.
- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
- Identify and name a variety of plants in their habitats,

Key Knowledge

There are many different types of plants which all have specific names. These can be identified by looking at the key characteristics of the plant. Plants have common parts, but they are different for each type of plants. Some trees keep their leaves all year while other trees drop their leaves during autumn and grow them again during spring.



Plants may grow from either seeds or bulbs. These then germinate and grow into seedlings which then continue to grow into mature plants. These mature plants may have flowers which then develop into seeds, berries, fruits etc. Seeds and bulbs need to be planted outside at particular times of year and they will germinate and grow at different rates. Some plants are better suited to growing in full sun and some grow better in partial or full shade. Plants also need different amounts of water and space to grow well and stay healthy.

We are MANOR! As Scientists we will ...

Manners

Develop a respect and understanding for the natural world, its people, animals and plants. Share ideas, celebrate good work, value others' contributions, or discussions and debates.

Aspiration

Learn by being challenged in a series of well-designed scientific enquiry and investigation tasks linked to meaningful contexts and develop a knowledge of scientists and careers to broaden our horizons. Be aspirational in developing scientific knowledge and conceptual understanding through biology, chemistry and physics.

Nurture

To recognise that we live in a wonderful world made up of many different people and living things. We will develop an appreciation and respect for the diverse world and environment in which we live, showing care and compassion for the environment around us.

Open-Mindedness

We will be open-minded so that we can conduct experiments or observe what is happening in order to see patterns that might emerge or to gain new knowledge. We will use curiosity when learning to wonder why something behaves a certain way.

Resilience

Engage confidently with the science curriculum and learn that anything is possible and failure is not something to fear but to learn from. We will develop our scientific enquiry and investigation skills with patience and care, repeating investigations to check the accuracy of results.

Flowers and plants

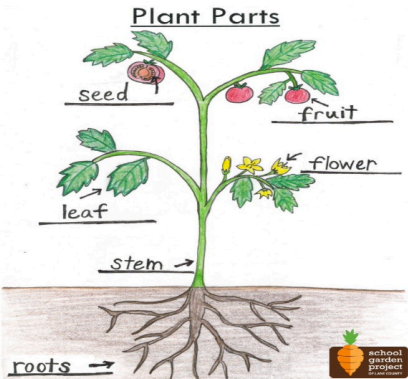
Plants are living things that grow from the ground. Some plants have flowers, and some do not. To grow, all plants need; water and air (carbon dioxide). For a plant to grow successfully they also need to be warm and be exposed to light (sunlight).



Common flowers and plants

Garden	Wild
fuchsia pansy sweet pea sunflower rose lavender iris	dandelion daisy buttercup nettles ivy dog rose clover brambles

Roots - roots absorb minerals and water from the soil. The roots also help the plant anchor in the soil and stay upright.
Stem - the stem transports water around the plant. It also holds the plant upright so it can get more sunlight.
Leaf - leaves make food for the plant from carbon dioxide in the air and sunlight.
Petal - part of the flower that are bright and colourful to attract insects to the plant.
Anther -the anther contains pollen which brushes onto insects when they land on the flower. The pollen is moved by insects to other flowers
Seed - part of the plants that can grow into a new plant.
Fruit - the part of a flowering plant that contains the seeds.



Trees

Trees can be grouped as deciduous or evergreen.

Deciduous trees have thin, broadleaves. Broadleaves have large surfaces so they can gather a lot of sunlight. Deciduous tree leaves often turn bright colours in the autumn and drop their leaves in winter.

Trees that are evergreen have thick, shiny, waxy smooth leaves or needles and cones. Evergreen trees keep most of their leaves all year round. Conifers are types of evergreen trees and grow upwards rather than outwards like deciduous trees.

Oak, Maple, Hawthorn, Sycamore, Beech and Elm trees are all deciduous.

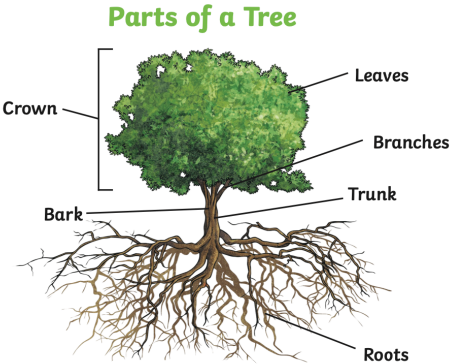


Pine, Cedar, Holly and Fir trees are all evergreen

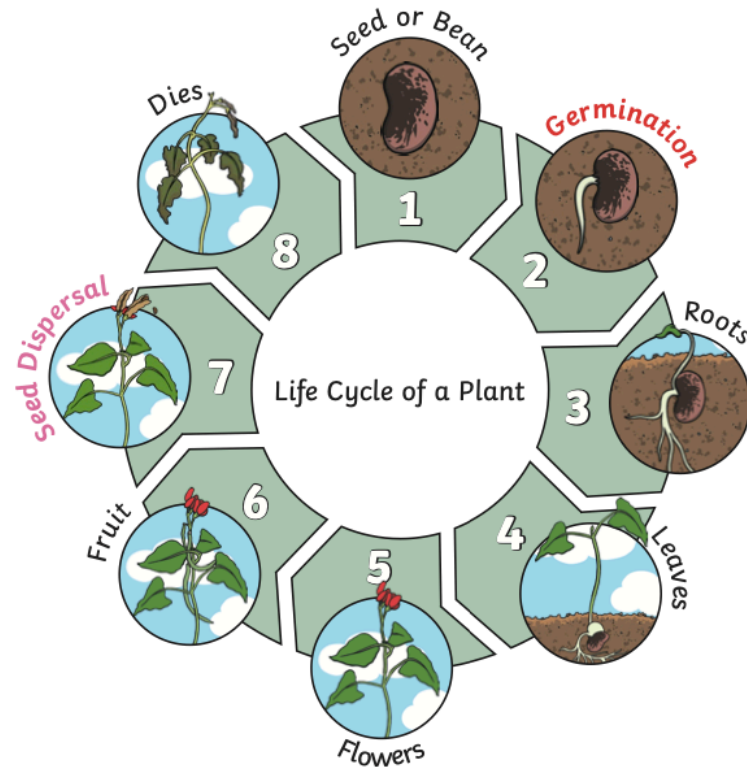


Parts of a tree.

Crown - the branches and leaves at the top of a tree.
Bark - the rough surface which protects the tree.
Roots - hold the tree in place. They also suck up water and food.
Trunk - supports the tree and carries water around it.
Branches - hold the leaves and carry water around the tree.
Leaves - turn sunlight into food for the tree.



Life Cycle of a plant



Vocabulary

wild plants	A wild plant seed grows where it falls. It doesn't need to be planted or cared for as it grows.
garden plants	Plants that people choose to grow in their gardens
life cycle	The journey of changes that take place throughout the life of a living things.
sprout	When a plant sprouts, it grows new shoots
shoot	A shoot grows upwards from the seed or
seed dispersal	When the seeds move away from the parent plants. They can be moved by the wind or animals
reproduce	The process of new living things being made.

Plants Quiz

- 1) Name the two different types of trees.
- 2) Which type of tree loses its leaves in the winter?
- 3) Name 2 wild and 2 garden plants.
- 4) True or false? A daisy is a garden plant.
- 5) What part of the plant absorbs water and minerals from the soil?