



Enquiry: How many types of plants are there?

Year: 1

Strand: Biology

Prior Knowledge

Plants can grow.
Some trees lose their leaves in the autumn and winter
Begin to understand the need to care for living things
Have explored the natural world around them

What will I know by the end of the unit? Substantive Knowledge

The names of some common garden plants

People may grow plants in their gardens and care for them.
They may grow flowering plants which are beautiful to look at or beans and seeds to grow plants for food.
When plants are grown for food, this may be called a herb garden or vegetable patch



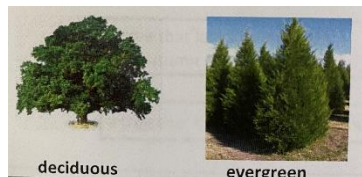
The names of some common wild plants

A wild plant will grow by itself.
It does not need to be cared for.
If it grows somewhere unwanted, it may be a weed.

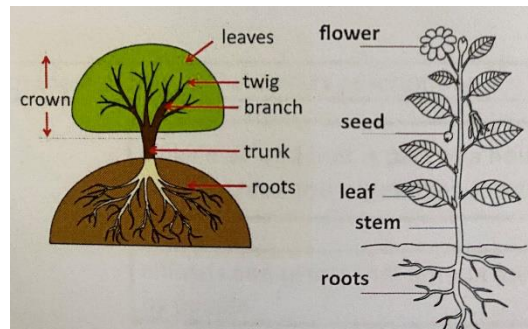


Deciduous and evergreen trees

Deciduous trees lose their leaves in the autumn every year. Their leaves are generally broad, flat and have veins running through them.
Evergreen trees have green leaves all year round. Their leaves are generally thick, waxy and narrow like needles



What are the parts of common trees and plants?



Vocabulary

deciduous	a tree that loses its leaves in the autumn every year
evergreen	a tree or bush which has green leaves all the year round
vegetable	plants such as cabbages, potatoes, and onions which you can cook and eat
vegetation	plants, trees and flowers
weed	a wild plant that grows in garden and prevents the plants that you want from growing properly
tree	a tall plant that has a hard trunk, branches, and leaves
trunk	the large main stem from which the branches grow
branches	parts that grow out from the tree trunk and have leaves, flowers, or fruit growing on them
flower	the part of a plant which is often brightly coloured and grows at the end of a stem
fruit	something which grows on a tree or bush and which contains seeds or a stone covered by a substance that you can eat
herb	a plant whose leaves are used in cooking to add flavour to food, or as a medicine
plant	a living thing that grows in the earth and has a stem, leaves, and roots
Leaf/leaves	the parts of a tree or plant that are flat, thin, and usually green
petal	thin coloured or white parts which form part of the flower
root	the parts of a plant that grow under the ground
stem	the thin, upright part of a plant on which the flowers and leaves grow
seed	the small, hard part from which a new plant grows
bulb	a root shaped like an onion that grows into a flower or plant
blossom	a flower or a mass of flowers, especially on a tree or bush
berry	a small roundish juicy fruit without a stone.
root	the part of a plant which attaches it to the ground carrying water and nourishment to the rest of the plant
bark	The protective outer covering of the trunk, branches, and roots of trees and other woody plants.
stalk	the slender attachment or support of a leaf, flower, or fruit.
bud	a compact growth on a plant that develops into a leaf, flower, or shoot

Learning Objectives

- 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

Possible Activities
<ul style="list-style-type: none"> Plant a bean or a seed and watch it grow. Record your observations in a diary. Go on a wild plant hunt! Create a tally chart to show how many of each plant you have found and then use the information to answer questions. Plant some garden plants, care for them and watch them grow. Go on a tree hunt - what types of trees can you see? Collect fallen leaves and identify which tree they came from using pictures to help you. Sort the leaves between deciduous and evergreen trees. Label the parts of a plant showing where the leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, and stems are. Make a close observation of leaves, seeds, flowers etc Compare two leaves, seeds, flowers etc Classify leaves, seeds, flowers etc by using a range of characteristics Identify plants by matching them to named images Make observations of how plants change over a period of time

Possible Misconceptions
<p>Some children may think:</p> <ul style="list-style-type: none"> plants are flowering plants grown in pots with coloured petals and leaves and a stem trees are not plants all leaves are green all stems are green a trunk is not a stem blossom is not a flower

Future Learning
<ul style="list-style-type: none"> Observe and describe how seeds and bulbs grow into mature plants. (Y2 - Plants) Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. (Y2 - Plants) Identify and name a variety of plants and animals in their habitats, including microhabitats. (Y2 - Living things and their habitats) Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 - Plants) Investigate the way in which water is transported within plants. (Y3 - Plants)

Working Scientifically (Disciplinary Knowledge)
<p>Perform simple tests</p> <p>Ask simple questions and recognise that they can be answered in different ways</p> <p>Use simple equipment to observe closely</p> <p>Gather and record data to help in answering questions</p> <p>Make a simple written explanation about what has been learned from an investigation or what conclusions have been found.</p> <p>Identify and classify</p>
Possible Evidence & Assessment Opportunity
<ul style="list-style-type: none"> Can name trees and other plants that they see regularly Can describe some of the key features of these trees and plants e.g. the shape of the leaves, the colour of the flower/blossom Can point out trees which lost their leaves and those that kept them the whole year Can point to and name the parts of a plant, recognising that they are not always the same e.g. leaves and stems may not be green Can sort and group parts of plants using similarities and differences Can use simple charts etc. to identify plants Can collect information on features that change during the year Can use photographs to talk about how plants change over time
Questions
<p>How do Plants grow?</p> <p>What do Plants need to grow?</p> <p>Do all plants need water?</p> <p>Are all plants green?</p> <p>Why do seeds look different?</p> <p>Can plants grow as big in the shade?</p> <p>What is the biggest/smallest/smelliest (etc) tree/flower/plant on the planet?</p>

Texts

The Things That I LOVE about TREES (Chris Butterworth)

Harry's Hazelnut (Ruth Parsons)

Tree: Seasons Come, Seasons Go (Patricia Hegarty and Britta Teckentrup)

End Points and Assessment of Core Learning

Working Scientifically

I can ask simple scientific questions.

I can use simple equipment to make observations.

I can carry out simple tests.

I can identify and classify things.

I can use observations to suggest answers to questions.

I can gather and record data to answer simple questions

I can name a variety of common wild and garden plants including deciduous and evergreen trees.

I can name the petals, stem, leaf and root of a plant.

I can name the roots, trunk, branches and leaves of a tree.

Question 1: If you are caring for a plant, which should you do?
Circle one.

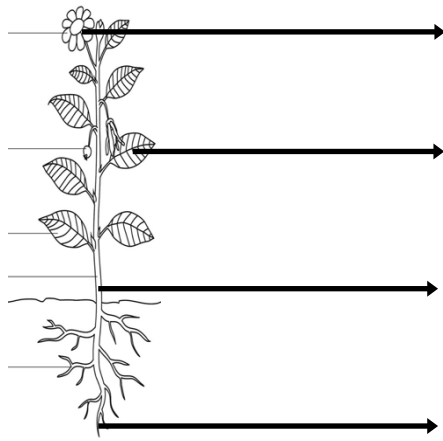
Start of unit	End of unit
a) Put your plant in the fridge	a) Put your plant in the fridge
b) Water it regularly	b) Water it regularly
c) Put it in a cupboard	c) Put it in a cupboard
d) don't know	d) don't know

Question 2: To grow a plant you must first put a _____ in the soil.
Circle the answer.

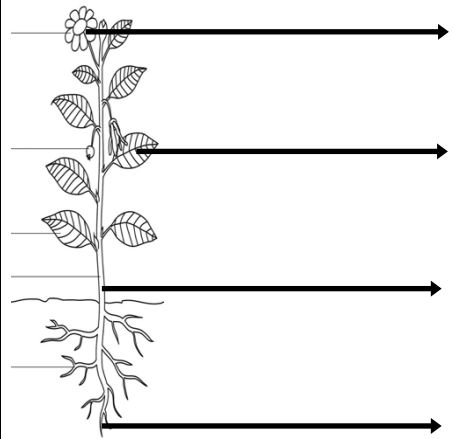
Start of unit	End of unit
a) seed	a) seed
b) flower	b) flower
c) stem	c) stem
d) petal	d) petal
e) don't know	e) don't know

Question 3: Can you label the parts of the plant? (or discuss with a partner).

Start of unit	End of unit
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leaf stem root flower



leaf stem root
flower