

Science Knowledge Organiser

Plants

Yr 2

Main Foci: Biology

What should I already know?

- **Plants** can grow.
- The names of some **common garden plants** (e.g. poppy, rose) and the names of some **common wild plants** (e.g. daisy, dandelion, nettle).
- **Deciduous trees** lose their **leaves** in the autumn every year.
- **Evergreen trees** have green **leaves** all year round.
- The parts of a plant including **petals, fruits, roots, bulbs, seeds, stem, trunks and branches.**

What will I know by the end of the unit?

Plants are living things and require things to grow.

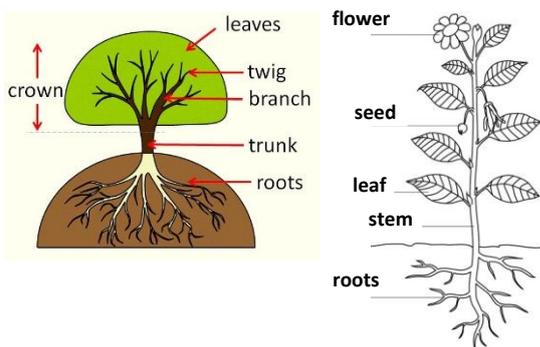
- **Plants** require things such as water, warmth, **nutrients** from soil and light to grow.
- If they do not have one or more of these things, they may stop growing.
- **Plants** can:
 - move
 - grow
 - react to their surroundings (sense)
 - absorb **nutrients**
 - **reproduce**

Which **plants** do we eat?

- Many **plants** provide us with food by bearing **fruits** which carry their **seeds**.
- When farmers grow **plants** to provide us with food, these are called **crops**.
- We eat many **fruits** that contain **seeds** (including tomatoes!).
- We also eat different parts of **vegetable plants**:
 - **root vegetables** (carrots, potatoes)
 - **stem vegetables** (celery, spring onion)
 - **leafy vegetables** (cabbage, lettuce)
 - **flowering vegetables** (cauliflower, broccoli)
- We eat grains and cereals from **plants** too (wheat, oats).
- Nuts and seeds are also sometimes edible (sesame seeds, pumpkin seeds, peanuts).
- Many **herbs** are also grown to add flavour to foods.



What are the parts of **common trees and plants**?



Vocabulary

| | |
|---------------|---|
| 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 |
| common | something that is found in large numbers or it happens often |
| crop | plants such as wheat and potatoes that are grown in large quantities for food |
| 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 |
| 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 |
| garden | a piece of land next to a house, with flowers, vegetables, other plants, and often grass |
| herb | a plant whose leaves are used in cooking to add flavour to food, or as a medicine |
| leaf / leaves | the parts of a tree or plant that are flat, thin, and usually green |
| nutrients | substances that help plants and animals to grow |
| 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 |
| reproduce | when an animal or plant produces one or more individuals similar to itself |
| 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 |
| tree | a tall plant that has a hard trunk, branches, and leaves |
| trunk | the large main stem from which the branches grow |
| 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 |
| wild | animals or plants that live or grow in natural surroundings and are not looked after by people |

Procedural Knowledge

- Sort through pictures to show which things are living, which are dead and things which have never been alive.
- Go on a **plant/tree** hunt. What do you notice about what they look like? What are their features?
- **Plant a bulb** or a **seed** and watch it grow. Record your observations in a diary. Compare the growth of that **plant** with a **plant** (using the same **bulb or seed**) where one of the conditions is different (no water, no light, a smaller container).
- **Plant a seed** on a wet cotton bud. Does it grow? Why might it grow for a little while and then stop?
- Dissect a variety of **fruits** and locate where their **seeds** are.
- Eat a variety of **vegetables** and identify which part of the **plant** they come from (note: do not taste nuts in school as they are allergens).
- Create a bar chart to show how tall your plants are to the nearest cm.

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| | | |
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| Question 1: Which three living processes do plants do? | Start of unit: | End of unit: |
| move | | |
| grow | | |
| walk | | |
| reproduce | | |

| | | |
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| Question 2: Which three things does a plant need to grow well? | Start of unit: | End of unit: |
| water, exercise, wind | | |
| soil, water, wind | | |
| soil, sunlight, water | | |
| water, darkness, soil | | |

| | | |
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| Question 3: What is happening in this picture? | Start of unit: | End of unit: |
|  | | |
| the plant has fallen over | | |
| the plant is growing towards the light | | |
| the roots are not strong enough to keep the plant straight | | |
| the flower is trying to look out of the window | | |

| | | |
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| Question 4: Four identical seeds have been planted at the same time. Which of them will produce the tallest and healthiest seedling? | Start of unit: | End of unit: |
| The seed that has been watered and kept in the cupboard. | | |
| The seed that has been watered and kept in a fridge. | | |
| The seed that has been placed on a wet cotton ball. | | |
| The seed that has been watered and placed on a windowsill. | | |

| | | | | | | | | | | |
|---|----------------|--------------|------|--------|------|---------|--------|--------|--|--|
| Question 5: Match these vegetables to the part of the plant they come from: | Start of unit: | End of unit: | | | | | | | | |
| <table style="width: 100%; border: none;"> <tr> <td style="border: 1px solid black; padding: 5px; width: 50%;">root</td> <td style="border: 1px solid black; padding: 5px; width: 50%;">cauliflower</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">stem</td> <td style="border: 1px solid black; padding: 5px;">carrot</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">leaf</td> <td style="border: 1px solid black; padding: 5px;">cabbage</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">flower</td> <td style="border: 1px solid black; padding: 5px;">celery</td> </tr> </table> | root | cauliflower | stem | carrot | leaf | cabbage | flower | celery | | |
| root | cauliflower | | | | | | | | | |
| stem | carrot | | | | | | | | | |
| leaf | cabbage | | | | | | | | | |
| flower | celery | | | | | | | | | |