

Year 2 Biological Science: Plants (How Plants Grow)

Unit 4

Scientific Investigations:

- Observing Changes over Time
- Looking for Naturally- Occurring Patterns and Relationships
- Researching Using Secondary Sources
- Comparative and Fair Testing

Scientific Skills Applied:

ASK

- To explore the world around them
- To find answers from books, photographs, videos (secondary sources)

BREAKDOWN

- To carry out simple tests
- To use simple measurements
- To use simple equipment

CAPTURE

- To observe closely
- To compare using simple features
- To record what they notice in different ways
- To notice patterns and relationships

DESCRIBE

- To explain what they found out
- To talk about what they have seen
- To use simple scientific language
- To know there are different ways to answer

Scientists:

- Jane Colden – botanist - lived in America hundreds of years ago. She was born in the 1720s.

Prior Learning:

- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)
- Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)

Curriculum	Learning Intention	Knowledge and Key Vocabulary
<p><u>Making links to learning and discuss the model (if needed)</u></p>	<p>What do you already know about plants pre assessment task?</p>	
<p><u>Knowledge and skills through investigations</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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. 	<p>Plants are living things and require things to grow. Identify things which are living, dead and things which have never been alive. Observe plants in the environment and identify features.</p> <p>Which plants do we eat? Identify and name plants we eat and which parts of the plant we eat. Observe fruits to locate where their seeds are.</p>	<p><u>Knowledge:</u></p> <ul style="list-style-type: none"> - To identify and name 5 common plants eg <i>daffodil/tulip/foxglove/snowdrop/poppy</i> - To know that plants require water, warmth, nutrients from soil and light to grow and that if they do not have one or more of these things, they may stop growing. - To know that plants can: move, grow, react to their surroundings (sense), absorb nutrients, reproduce. - To know that many plants provide us with food by bearing fruits which carry their seeds.

- Notes and guidance (non-statutory)
- Pupils should use the local environment throughout the year to observe how different plants grow.
 - Pupils should be introduced to the requirements of plants for germination, growth, and survival, as well as to the processes of reproduction and growth in plants.
 - Note: Seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them.

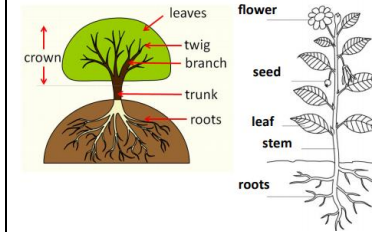
- Pupils might work scientifically by:
- observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.

What are the parts of common trees and plants?
 Label parts of a plant and tree and understand what each part does to help the plant to grow.
 Research the life cycle of a plant.

How do plants grow?
 Plant a bulb or a seed.
 Record observations in a diary.
 Change variable when planting.
 Compare the growth of the plants.
 Form conclusions from observations.
 Record results for height using a bar chart.

- To understand that we eat many fruits that contain seeds, we also eat different parts of vegetable plants
- To know that we eat grains and cereals from plants too
- To understand that nuts and seeds are also edible.

To name 5 parts of a plant/tree



Vocabulary:

- Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud.
- Names of trees in the local area.
- Names of garden and wild flowering plants in the local area.
- Light, shade, sun, warm, cool, water, grow, healthy.
- Root vegetables carrots, potatoes, stem vegetables celery, spring onion, leafy vegetables cabbage, lettuce, flowering vegetables ;cauliflower, broccoli
- wheat, oats, sesame seeds, pumpkin seeds, peanuts

Application and Assessment Activity

<https://www.educationquizzes.com/ks1/science/>

Thinking Deeper:

Can plants eat humans? Research carnivorous plants and how they can eat creatures and insects.

Links to other subjects:

- Subject Specific links –
 - English: new vocabulary, explaining their work, describing images and processes.

- Maths: sorting activities and comparative language. Measuring using cm
- ICT: learning from activities and videos on IWB

- Personal Development – learning how to look after plants and the link to environmental changes.

- SMSC – learning how to look after plants and to respect nature.

- Cultural Capital –show an appreciation of where in the world some plants come from and different cultures eat different plants

- Careers – farming, florist, tree surgeon, scientist, biologist,

- British Values - developing self-esteem and pride in growing something

- Equality – Promotion of both men and women as scientists.