

Grindon Infant Science Medium Term Planning - Year 1 Plants

End of Unit Goals

Pupils will be able to:

- Identify & describe the basic structure of flowering plants.
- Identify, name & *observe* a variety of common plants (garden/wild/veg plants, trees) *growing in their habitat*.
- Identify deciduous & evergreen trees (*features & through their yearly life cycle (Big Picture)*). *Link to seasons*.

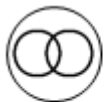
Prior Knowledge

Begins to measure time with timers and calendars. Increasingly able to order and sequence events related to time. Looks closely at similarities, differences, patterns and change in nature. Makes observations of plants and why some things occur & change. Develops understanding of growth, decay and changes over time. Explores plants in a contrasting natural environment. Observe living things throughout the year. (EYFS)

Skill Objectives

Explaining Science			Making Conclusions		
I use science words during an activity	I use & remember science words during an activity	I use & remember science words over a short time	I sort using pictures or instructions	I sort using simple yes/no statements	I use simple spider keys with obvious differences
			I group by familiar features	I group by difference or similarity	I group by difference similarity or change
I describe what is happening using words & actions	I describe what is happening using science	I use science to describe & recall what I have seen			

Enquiry Types



Classification



Finding Patterns



Observing over time



Fair testing

Key Vocabulary

Plant, leaf, stem (trunk, branch), root, flower (petals), bud, fruit, seed, bulb, grow, evergreen, deciduous, spring, summer, autumn, winter, (hibernate), (chlorophyll – green substance in leaves that ‘makes’ food), **sort, group, classify, feature (criteria), spider key.**

Important Scientists



Alan Titchmarsh (1949) English gardener and TV presenter of Gardeners World. He brought gardening to the masses and engaged people in understanding plant science.

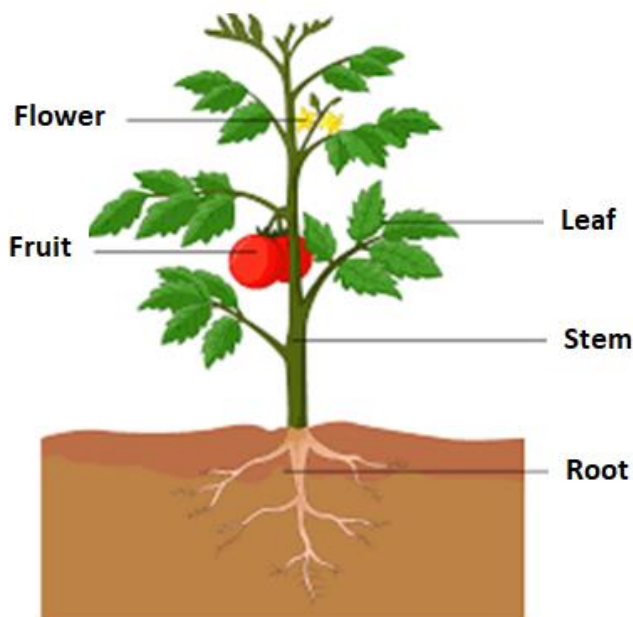


Richard Deverell (1965-) Current director of Royal Botanic Gardens at Kew. Kew Gardens in London has the world's largest collection of plants and seeds to prevent extinctions. It carries out world-class science research and is so big it has its own police force.

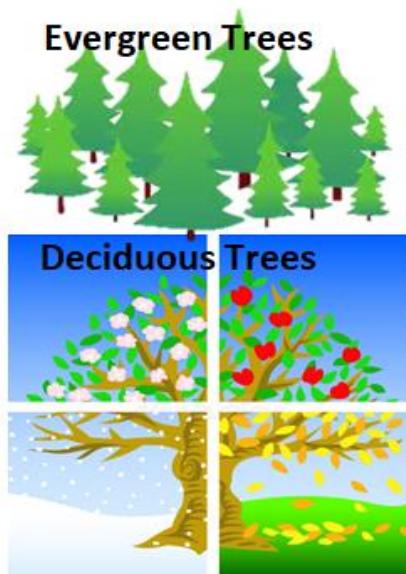
Common Misconceptions

Plants are not living. Plants don't move. Plants get water directly from rain (leaves take in water). A seed is dead. Trees are not plants. Shops make fruit & vegetables. Plants make flowers so we find them pretty. The flower is the plant (don't call them plants). Weeds are not plants. Plants can grow in the dark. All leaves are green. A trunk is not a stem. Plants need 'plant food' to grow. Plants breathe like we do.

Big Picture Model



Big Picture Model



Session	Knowledge Objective	Skill Objective	Enquiry Opportunities	Extension Opportunities	SEN
1			Complete KWL Grid (Plants) Explore and discuss skills and knowledge that will be covered in unit.		Scribe for children with SEND - record straight onto KWL sheet.
2	<p>What are the main parts of a plant?</p> <p>I can use key science words to label the parts of a plant.</p>	<p>I can use and remember words during a science activity.</p>	<p>What are the main parts of a plant?</p> <p><i>Enquiry opportunity:</i></p> <p><i>Bring a plant into the class for the children. Can the plant survive without its leaves? Remove leaves from plant and investigate with children daily to check on plant and see how it is growing. Record findings on science working wall. Take before and after photo for science wall.</i></p> <p>Starter</p> <p>Watch a small snippet of the garden centre tour video. Ask the children what they can see! Have they ever been to a</p>	<p>What are the roles of the different parts of a plant?</p>	<p>Cut and stick the parts of the plant together to form a plant. Can children name the plant parts? Record on speech bubbles. EHCP - cut up a plant and piece back together. Can children name the parts?</p>

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			<p>garden centre? What can we find there? Plants! https://www.youtube.com/watch?v=SkURbZS_GcU</p> <p>Main activity Follow the PowerPoint provided, considering the parts of a plant. Work with children to create a display plant for the science wall using different materials.</p> <p>Children to use worksheet with word bank to label their plant. Children to colour/ use art materials to decorate their plant after they have labelled it.</p> <p>Plenary Activity 1 on bitesize, plant label game. https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/z2vhxbk</p>		
3	<p>What happens to a plant as it grows?</p> <p>I can order and describe the process of how a plant grows.</p>	<p>I can use and remember words during a science activity.</p> <p>I can describe what is happening using science.</p>	<p>Starter: Can the children remember the parts of a plant? Draw on Active inspire and have children come to front to point to parts.</p> <p>https://www.youtube.com/watch?v=7aOu5jMYviM Watch video about plant life cycle.</p> <p>Main activity: Follow powerpoint discussing what a plant needs to grow. Add these factors to science working wall. Use a large sheet of paper to sequence the process of how a plant grows as a whole class. Consider factors of plant growth including how it gets 'bigger', changes 'shape',</p>	<p>What could happen to these plants if they did not have water, sunlight, etc? Set up an experiment in class.</p>	<p>Use visuals to support scientific vocabulary.</p>

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			<p>changes 'colour' as it grows etc.</p> <p>Task: Children to sequence the photos in the correct order for how the plant grows using teacher led example as scaffold.</p> <p>Enquiry consideration: Do all plants grow at the same speed? Discuss in partners.</p>		
4	<p>Can you name different types of plant?</p> <p>I can use science words to identify a variety of trees and plants. I can sort plants into different groups.</p>	I group by difference or similarity.	<p>Starter: Show the children the checklist for types of trees. Explain that by looking at the shapes of the leaves, we can identify the type of tree. Take an autumn walk outside and in large groups, children to find and identify trees in the schools yard. Collect some leaves from outside to use in later task.</p> <p>Main activity: Children to complete matching activity, identifying the 4 types of plant and their names (Page 1 of PDF)</p> <p>Children to choose one of the leaves from outside, children to draw leaf in their book and label leaf with the name of the corresponding tree. Checklist to be on IWB as scaffold.</p> <p>Class extension: Create a leaf mobile using leaves from hunt (example on drive).</p>	What do some trees have in common? Look at shaped leaves.	Have a selection of leaves for children to observe and sort. Use visuals to support verbal/scientific vocabulary.
5	Why do some trees lose their leaves in Autumn?	I group by difference or similarity.	<p>Starter: Pose the question, why do some trees lose their</p>	What do evergreen trees have in common? Look at	T to record verbal statements as

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	<p>I can explain and draw how a deciduous tree changes over the 4 seasons. I can sort plants into different groups.</p>	<p>I sort by using simple yes/no statements.</p>	<p>leaves in Autumn and Winter?</p> <p>Main input: Follow the PowerPoint, looking at how a deciduous tree changes over the seasons. Look at the clip of the trees changing over time. Ask the children to discuss with a talk partner, what do the trees look like now in November?</p> <p>Task: Children to paint how the trees change over the 4 seasons. Children to write a sentence explaining what happens to the tree in each season.</p> <p>Plenary: Guess my season. Children to have a season on a post it note on their head. Other children to ask them yes/no questions to try to guess what season they are. Eg. <i>Do you have cold weather? Yes Have the leaves fallen off the tree in your season/ Yes. Are you winter? Yes.</i></p>	<p>shaped leaves.</p>	<p>observations occur. Use of visuals to support scientific vocabulary.</p>
<p>6</p>	<p>Do all trees lose their leave in Autumn?</p> <p>I can identify and sort evergreen and deciduous trees.</p>	<p>I sort by using simple yes/no statements.</p>	<p><u>Starter:</u> Look at trees discussion PowerPoint, provide the children with the views the children on the PowerPoint have and ask them to discuss what they think? (Oracy link).</p> <p><u>Main input:</u> Follow the powerpoint, discussing the difference between an evergreen and deciduous tree. Look at some examples of evergreen trees and discuss what is similar about their leaves.</p> <p><u>Task:</u> Children to sort the images of evergreen and</p>	<p>What happens to a broad-leaf and evergreen leaves when we put them in the freezer?</p>	<p>T to record verbal statements as observations occur. Use of visuals to support scientific vocabulary.</p>

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			deciduous trees.		
7			Children to complete their KWL grid: What have we learnt about plants?		
Useful Texts, Website & Resources <ul style="list-style-type: none">• https://www.youtube.com/watch?v=SkURbZS_GcU• https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/z2vhxbk• https://www.youtube.com/watch?v=7a0u5jMYviM					