

Year 2 Plants

<p>Expected</p>	<p>Do not need to report GD at KS2 but these are some ideas for extending children's understanding.</p>
<ul style="list-style-type: none"> ● describes how a seed/bulb grows roots, a stem, leaves and flowers having observed the growth of, e.g. a broad bean seed, a daffodil bulb ● talks about the stages of plant growth from seed/bulb to mature plant ● correctly sequences a set of pictures that show the growth of a plant ● describes what a healthy and an unhealthy plant looks like ● knows what a plant needs to grow and to be healthy i.e. water, light and a suitable temperature ● describes what will happen to a plant if it does not have any one of the above, e.g. plants kept in the dark will become yellow/less healthy, plants without water will wither and eventually die 	<ul style="list-style-type: none"> ● knows that mature plants have seeds and that the seeds will make more plants ● knows that bulbs make more bulbs i.e. they multiply ● identifies a variety of plants which grow from bulbs, e.g. daffodil, tulip, snowdrop, crocus and a variety that grow from seeds, e.g. lettuce, grass, radish ● explains why it is important to have healthy plants, e.g. better fruit crops ● raises own questions for an investigation about further conditions affecting plant growth, e.g. effect of plant food on plant growth

<p>Enquiry Opportunities</p>	
<p>These are suggestions for enquiry activities. Please ensure that you are covering all types over the year. Focus on one scientific skill per enquiry. Children do not need to write up each stage of the investigation. Focus on just the skill being taught.</p>	<p>Year 2 Working Scientifically Statements From Insights</p> <ul style="list-style-type: none"> ● Uses simple equipment to observe closely including changes over time. ● Uses observations and ideas to suggest answers to questions, noticing similarities, differences and patterns. ● Identifies, classifies and groups items related to their science learning. ● Performs simple comparative tests. ● Gathers and records data to help in answering questions including from secondary sources of information.

Identifying and Classifying	Comparative Testing	Fair Testing	Pattern Seeking	Research	Observation Over Time
How can we identify the trees that we observed on our tree hunt? Classify seeds based on the children's own criteria.	Do cress seeds grow quicker inside or outside? Is there the same level of light in the evergreen wood compared with the deciduous wood?		Children generate questions for investigations: Do big seeds germinate more quickly? Does it matter which way round you plant a bulb or seed? Which comes first, the root or shoot? Do bigger seeds grow into bigger plants?	How does a cactus survive in a desert with no water?	What happens to my bean after I have planted it?

Prior Knowledge	Previous Lesson Topics	
<ul style="list-style-type: none"> • Make observations of plants, explain why some things occur and talk about changes • 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 	Year 1: 1. Plant bean without water/ light/ soil and with all - fair test 2. Structure of plant 3. Plant Survey of Wildlife Area 4. Rainforest plants 5. Use leaves to identify trees 6. Deciduous and Evergreen trees 7. Draw and label plant structure	
	Year 2 National Curriculum Statements	Future Learning
	<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 	In Year 3 pupils will be taught to: <ul style="list-style-type: none"> • Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • Explore the requirements of plants for life and growth (air, light, water, nutrients from soil and room to grow) and how they vary from plant to plant

	a suitable temperature to grow and stay healthy	<ul style="list-style-type: none"> Investigate the way in which water is transported within plants Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal <p>In Year 5 pupils will be taught:</p> <ul style="list-style-type: none"> Describe the life processes of reproduction in some plants and animals <p>In Year 6 pupils will be taught:</p> <ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics Identify how animals and plants are adapted to suit their environment and that adaptations lead to evolution 		
	Year 2 Insight Statements			
	<ul style="list-style-type: none"> Observes and describes how seeds grow into mature plants. Describes how plants need water, light and a suitable temperature to grow and stay healthy. 			
Common Misconceptions	Competitions	Scientists	Books	
<p>Some children may think:</p> <ul style="list-style-type: none"> plants are not alive as they cannot be seen to move seeds are not alive all plants start out as seeds seeds and bulbs need sunlight to germinate. 	<p>DSWF - Theme Forests of Land and Sea</p> <p>RHS Garden and Plants Photography competition</p>	<p>Required:</p> <p>Marie Clark Taylor - botanist who studied the effects of light on plant growth.</p> <p>Suggested:</p> <p>Michael Way - botanist who sets up and runs plant conservation projects, seed banking etc.</p> <p>Gregor Mendel – plants</p> <p>Jane Colden - botanist</p> <p>Captain Cook- Botanist</p> <p>Agnes Arber Botanist</p> <p>Alan Titchmarsh- Botanist & Gardener</p>	<p>The Tin Forest (Helen Ward)</p> <p>Jack and the Beanstalk (Richard Walker)</p> <p>Ten Seeds (Ruth Brown)</p> <p>A Seed Is Sleepy (Dianna Aston)</p> <p>Handa’s Surprise (Eileen Brown)</p>	
Vocabulary		School Resources	Cross-curricular Links	

<p>Year 1: wild plant, garden plant, leaf, leaves, flower, blossom, petal, fruit, berry, root, bulb, seed, trunk, branch, stem, bark, stalk, vegetable Adults Use Language: deciduous, evergreen</p> <p>Year 2: fully grown, water, light, damp/ wet/ dry, dark/ light, hot/ warm/ cool/ cold, comparatives e.g. hotter, grow/ growth, healthy, shoot, seedling, wither/ limp, die, dry/ crispy, soil, earth Adults Use Language: germinate/ germination, temperature, mature plant</p>	<p>Biodome, Wildlife Areas, planting bed, shovels, seeds, compost etc.</p>	<ul style="list-style-type: none"> ● Choose and use appropriate standard units to estimate and measure length/height by measuring the growth of plants throughout the year - change 1 variable e.g. sunlight/no sunlight and measure: stem length, leaf length and width, petal length and width – record results in a simple table. ● Choose and use appropriate standard units to estimate and measure temperature by measuring the temperature of the environment in which plants grow best – record results in a simple table. ● Sort seeds based on their properties/ what they grow into. ● Count beyond 100 by investigating if you always get the same amount of seed in a packet.
	<p>Outdoor Learning and Resources</p>	
	<p>Wildlife Areas Biodome</p>	