



**Subject: Science (Plants including adaptation)**

Year Group	What knowledge would we like to know?	What skills would we like to know?	How else could we challenge the pupils?	Vocabulary
R				
Y1	<ul style="list-style-type: none"> <li>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including trees</li> <li>Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies</li> </ul>	<ul style="list-style-type: none"> <li>Ask simple questions and recognise that they can be answered in different ways</li> <li>Use simple equipment to observe closely</li> <li>Perform simple tests</li> <li>Identify and classify</li> <li>Use his/her observations and ideas to suggest answers to questions</li> <li>Gather and record data to help in answering questions</li> </ul>	<p>Can you identify a tree from its leaf? What did you notice and what can you use to help you?</p> <p>Label parts of a tree and flower. What do each part do? Do you know how?</p>	<p>Y1</p> <p>seed plant tree soil predict stem petal leaf root flower environment weed daisy dandelion wild deciduous evergreen seasons branch bush supermarket fruit vegetable farm tractor growth seedling young plant adult plant observe season spring summer autumn winter autumn hibernate weather protect harvest weather frost sleet temperature</p>
Y2	<ul style="list-style-type: none"> <li>Observe and describe how seeds and bulbs grow into mature plants</li> </ul>	<ul style="list-style-type: none"> <li>Ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum</li> </ul>	<p>What is a bulb? What is the process called when the bulb starts to grow?</p>	<p>Y2</p> <p>seeds bulbs growth plant compare predict investigate control</p>

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	<ul style="list-style-type: none"> <li>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</li> </ul>	<ul style="list-style-type: none"> <li>Use simple equipment to observe closely including changes over time</li> <li>Perform simple comparative tests</li> <li>Identify, group, and classify</li> <li>Use his/her observations and ideas to suggest answers to questions noticing similarities, differences, and patterns</li> <li>Gather and record data to help in answering questions including from secondary sources of information</li> </ul>	<p>Investigate plants, what do they need to survive? What could you test? How many variables should you have for a fair test? What would you need to carry out you test?</p>	<p>experiment method photosynthesis carbon dioxide oxygen glucose energy pollination life cycle germination reproduction seedling manure crop insulate thrive healthy forest desert adapt condition survive</p>
Y3	<ul style="list-style-type: none"> <li>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</li> <li>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</li> <li>Investigate the way in which water is transported within plants</li> <li>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</li> </ul>	<ul style="list-style-type: none"> <li>Ask relevant questions and use different types of scientific enquiries to answer them</li> <li>Set up simple practical enquiries, comparative and fair tests</li> <li>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>Gather, record, classify and present data in a variety of ways to help in answering questions</li> <li>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> </ul>	<p>Identify and name parts of a plant, what does each part do? How do you know?</p> <p>Investigate what a plant needs, do different plants need different things? Do pond weed and a geranium need the same? Why/why not?</p> <p>Investigate the circulatory system of a plant, how could we test that? Coloured water?</p> <p>Do plants need help from other species to reproduce? Why? What do they do?</p>	<p>Y3</p> <p>nutrients fertiliser nursery potassium stunted chlorophyll stomata xylem photosynthesis UV light xylem phloem absorb stomata transpiration anther stigma style filament reproduction pollination pollen nectar seed dispersal pollinator germination vulnerable anchor sapling formation</p>

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		<ul style="list-style-type: none"> <li>• Identify differences, similarities or changes related to simple scientific ideas and processes</li> <li>• Use straightforward scientific evidence to answer questions or to support his/her findings</li> </ul>		
<b>Y4</b>	Not on the NC for this year group, but it will be taught.	<ul style="list-style-type: none"> <li>• Ask relevant questions and use different types of scientific enquiries to answer them</li> <li>• Set up simple practical enquiries, comparative and fair tests</li> <li>• Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>• Gather, record, classify and present data in a variety of ways to help in answering questions</li> </ul>		

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		<ul style="list-style-type: none"> <li>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>Identify differences, similarities or changes related to simple scientific ideas and processes</li> <li>Use straightforward scientific evidence to answer questions or to support his/her findings</li> </ul>		
Y5	Not on the NC for this year group	<ul style="list-style-type: none"> <li>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>Use test results to make predictions to set up further comparative and fair tests</li> <li>Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in</li> </ul>		

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		<p>results, in oral and written forms such as displays and other presentations</p> <ul style="list-style-type: none"> <li>• Identify scientific evidence that has been used to support or refute ideas or arguments</li> </ul>		
<b>Y6</b>	Not on the NC for this year group	<ul style="list-style-type: none"> <li>• Plan different types of scientific enquiries to answer their own or others' questions, including recognising and controlling variables where necessary</li> <li>• Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>• Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>• Use test results to make predictions to set up further comparative and fair tests</li> <li>• Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>• Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>• Describe and evaluate their own and other people's scientific ideas related to topics in the national curriculum (including ideas that</li> </ul>		

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		have changed over time), using evidence from a range of sources		
		<ul style="list-style-type: none"><li>• Group and classify things and recognise patterns</li></ul>		