

Year B Term 3

Unit Overview: KS1 Science

Plants

<p><u>National Curriculum Objectives</u></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><u>Substantive knowledge</u></p> <ul style="list-style-type: none"> ❖ Plants may grow from either seeds or bulbs. ❖ Seeds or bulbs germinate and grow into seedlings which then continue to grow into mature plants. ❖ Mature plants may have flowers which then develop into seeds, berries, fruits etc. ❖ Seeds and bulbs need to be planted outside at particular times of year and they will germinate and grow at different rates. ❖ Some plants are better suited to growing in full sun and some grow better in partial or full shade. ❖ Plants also need different amounts of water and space to grow well and stay healthy. 	<p><u>Vocabulary</u></p> <p>Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud light, shade, sun, warm, cool, water, grow, healthy</p> <p><u>Phonics / polysyllabic words</u></p> <p>Ger/min/ate (/er/ and /ae/)</p> <p>Health/y (/e/)</p>
<p><u>Working Scientifically Skills</u></p> <ul style="list-style-type: none"> ❖ Asking simple questions and recognising that they can be answered in different ways ❖ Observing closely, using simple equipment ❖ Performing simple tests ❖ Identifying and classifying ❖ Gathering and recording data to help in answering questions ❖ Using their observations and ideas to suggest answers to question 	<p><u>Disciplinary knowledge</u></p> <ul style="list-style-type: none"> ❖ Describe how plants that they have grown from seeds and bulbs have developed over time. ❖ Identify plants that grew well in different conditions. ❖ Spot similarities and difference between bulbs and seeds. ❖ Describe how to nurture seeds and bulbs into mature plants identifying the different requirements of different plants. 	<p><u>Reading support</u></p> <ul style="list-style-type: none"> ❖ Word mats ❖ Scaffolded recording ❖ Pre-teaching of vocabulary <p><u>Extension deeper thinking</u></p> <ul style="list-style-type: none"> ❖ Describe in detail the growth of seeds and bulbs into plants from their own observations and from measurement, including the use of charts and graphs. ❖ Explain in simple terms why a number of plants should be used to provide reliable evidence about plant growth. ❖ Know that plants make their own food but that humans and many animals use plants as food.

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<p><u>Possible misconceptions</u></p> <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><u>British Values</u></p> <p>Democracy</p> <ul style="list-style-type: none"> ❖ Take the views and opinions of others into account using teamwork. ❖ Children take turns and instructions from others. <p>The rule of law</p> <ul style="list-style-type: none"> ❖ Children understand the importance of safety rules when working scientifically. 	
<p><u>Prior learning</u></p> <ul style="list-style-type: none"> ❖ 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) 	<p>Individual Liberty</p> <ul style="list-style-type: none"> ❖ Children choose which resources to use. ❖ Children are encouraged to develop their independence, taking opportunities to follow their own ideas and interests. 	<p><u>Key People</u></p> <p>Carl Linneaus – Botanist who categorised all living organisms</p> <p>Angie Burnett – Plant Biologist</p>
<p><u>Future learning</u></p> <ul style="list-style-type: none"> ❖ Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 -Plants) ❖ 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. (Y3 -Plants) ❖ Investigate the way in which water is transported within plants. (Y3 -Plants) ❖ Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 -Plants) 	<ul style="list-style-type: none"> ❖ Children engage in a wide range of activities and are not limited by gender or other stereotypes. <p>Mutual Respect and Tolerance</p> <p>Evolution versus faith beliefs</p>	<p><u>School Values</u></p> <p>Courage</p> <ul style="list-style-type: none"> ❖ Asking our own questions and investigating new ideas. <p>Respect</p> <ul style="list-style-type: none"> ❖ Supporting other's ideas, even if they differ to our own. <p>Trust</p> <ul style="list-style-type: none"> ❖ Celebrating everyone's unique ideas and working together collaboratively.