



Science Unit Planner Year: 3 Title: Plants

<p>Unit Overview</p>	<p>Pupils will learn different parts of flowering plants and their functions, what different types of plants need to grow and how water is transported in plants. Pupils will also look at fertilisation of plants and pollination. As the children are studying this unit, they are also investigating the rainforest in geography, so direct reference can be made to that.</p>	
<p>Prior Learning/ Links</p>	<p>EY - to recognise similarities and differences between different plants. KS1 - describe how plants grow from seeds and bulbs into mature plant, the basic structure of trees and flowering plants, how plants need water, light and the right temperature to stay healthy. They are also taught to name common plants and trees – including deciduous and evergreen.</p>	
<p>Unit Title:</p>	<p>Substantive Knowledge</p>	<p>Disciplinary Knowledge</p>
<p>Key Questions:</p> <p>What are the main parts of a plant?</p> <p>What do plants need to survive?</p> <p>What are the parts of a flower?</p> <p>What is the role of a flower?</p> <p>How is water transported in plants?</p> <p>How does pollination happen?</p> <p>How do seeds spread from the flowers to other areas?</p>	<ul style="list-style-type: none"> • Know parts of a plant: <ul style="list-style-type: none"> - Flowers have colour and smell to attract insects. - Leaves play a part in the plant making food. They can change carbon dioxide and water into food. - The stem makes sure the plant is upright and they carry nutrients from the soil to the rest of the plant. - Roots are an anchor for the plant. They hold it in place. They soak up water and nutrients from the soil and take it to the rest of the plant. • Know that plants need light, water, and carbon dioxide so the leaves can make nutrients for the plant. They also need the right temperature- if it is too hot or cold the plant will die. • To know flowers have petals, stamen (the male part of a flower) which have an anther and a filament, and a carpel (the female part of a flower) which has a stigma, style and ovary. For a plant to make a seed, the pollen must get from its carpel to another plant. • Children can explain the life cycle of a flowering plant. • Children know how seeds can be spread by excretion – birds and animals eat the seeds and they come out in their poo. They can also be spread by the wind- the wind blows seeds around and they travel. Some seeds have a pod that bursts and the seeds scatter. 	<p>Questioning and Planning</p> <ul style="list-style-type: none"> • To ask relevant questions and set up simple scientific enquiries. • To make simple predictions about what plants will need to survive. <p>Observation and Measurement</p> <ul style="list-style-type: none"> • To collect and use the correct equipment in order to complete a test. • To make careful observations when conducting a test - ensuring accuracy of results. • Use observations to describe how different plants need different things to survive, including air, light, water, nutrients and room. <p>Recording and Presenting</p> <ul style="list-style-type: none"> • To set up a fair test – stating the variable. • Present data in a variety of ways including charts, tables diagrams, keys and charts. • Explain the life cycle of a flowering plant using terminology: pollination, seed formation and seed dispersal. • <p>Analysing and Evaluating</p>



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	<p><u>Investigations:</u></p> <ul style="list-style-type: none"> • Children can explain how water/light effects plant growth (light/dark, water/no water experiment) • Children can describe how water is transported (flower and dye experiment) • Analyse plant parts by dissecting a flower and carefully look at plant parts, fruits and seeds with magnifying glasses 	<ul style="list-style-type: none"> • Use results to draw conclusions and to evaluate the effectiveness of the enquiry. • Use evidence to support findings. • Analyse and describe the relationship between the structure of plants and the function each part plays via the dissection of plants/flowers.
<p>Vocabulary</p>	<p>Trips/ Visits/Useful Websites/ Resources</p>	<p>Key Misconceptions:</p>
<p>Substantive: Petal Seed Leaf Stem Carpel Stamen Pollen Dispersal Nectar Fertilisation Biomes</p> <p>Disciplinary: Relevant questions Enquiry Equipment Accurate Results Fair test Variable Diagram Table Chart Conclusion Evaluate</p>	<p><u>Useful websites:</u></p> <p>What are the parts of a plant? - BBC Bitesize</p> <p>Science KS1 / KS2: The anatomy of the flower - BBC Teach</p> <p>Plants: Year 3 Lesson Plans for Teachers Young People's Trust For the Environment (ypte.org.uk)</p>	<ul style="list-style-type: none"> • Plants keep growing once cut • Flowers keep on growing without roots • That pollen and nectar are the same thing • Temperature does not affect plant growth • Plants do not grow without light (they can keep growing but not healthily) • Plants need lots of water (plants need different things- lots and not enough will still harm a plant)



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Evidence		
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