

## Science Project Overview Year 2 Plants

<p><b>Subject Knowledge (PoS)</b></p> <p><b>Substantive Knowledge</b></p> <ul style="list-style-type: none"> <li>• Observe and describe how seeds and bulbs grow into mature plants.(Yr2)</li> <li>• With the required conditions seeds germinate, grow into seedlings, grow roots and then into a fully grown plant.</li> <li>• Under the required conditions bulbs grow roots, germinate a shoot and then grow into a fully grown plant. Bulbs will repeat this process each year around the same time.</li> <li>• Plants need water, light and a suitable temperature to grow and stay healthy.(Yr2)</li> </ul>	<p><b>Working Scientifically (PoS+Overview)</b></p> <p><b>Disciplinary Knowledge</b></p> <ul style="list-style-type: none"> <li>• Be curious and ask questions</li> <li>• Using different types of scientific enquiry to answer their own questions, including: observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources</li> <li>• Asking simple questions and recognising that they can be answered in different ways</li> <li>• <b>Observing closely, using simple equipment</b></li> <li>• <b>Performing simple tests</b></li> <li>• Identifying and classifying</li> <li>• <b>Using their observations and ideas to suggest answers to questions</b></li> <li>• Begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways.</li> </ul>	<p><b>Working Scientifically Methods (Must be done)</b></p> <p>Using different types of scientific enquiry to answer their own questions, including:</p> <ul style="list-style-type: none"> <li>• <b>observing changes over a period of time,</b></li> <li>• noticing patterns,</li> <li>• grouping and classifying things,</li> <li>• <b>carrying out simple comparative tests,</b></li> </ul> <p>and finding things out using secondary sources</p>
<p><b>Previous learning:</b></p> <p>From Development Matters Reception</p> <p>Recognise some similarities and differences between life in this country and life in other countries.</p> <p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Recognise some environments that are different from the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p><b>Preparing for:</b></p> <ul style="list-style-type: none"> <li>• Observe and describe how seeds and bulbs grow into mature plants. (Y2 - Plants)</li> <li>• Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. (Y2 - Plants)</li> <li>• Identify and name a variety of plants and animals in their habitats, including microhabitats. (Y2 - Living things and their habitats)</li> <li>• Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 - Plants)</li> </ul>	<p><b><u>Bespoke to our school</u></b></p> <p>In this unit children benefit from our woodland area and our trained Forest school teacher and learn about the natural world around them. Many children haven't had these opportunities before.</p>

	<ul style="list-style-type: none"> <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. (Y3 - Plants)</li> <li>• Investigate the way in which water is transported within plants. (Y3 - Plants)</li> <li>• Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 – Plants)</li> </ul>	
<b>Vocabulary:</b> Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud , light, shade, sun, warm, cool, water, grow, healthy Names of trees in the local area Names of garden and wild flowering plants in the local area		
<b>Misconceptions:</b> Plants are flowering plants grown in pots with coloured petals and leaves and a stem Trees are not plants All leaves are green All stems are green A trunk is not a stem Blossom is not a flower 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.		
<b>English Links:</b> Invitations to a garden party explaining what will be the highlights. Diary – Bulb diary. <b>Books:</b> Jack and the beanstalk – various The enormous turnip		
<b>Maths links:</b> <b>Measurement:</b>		

- Be able to use appropriate standard units to estimate and measure to the nearest appropriate unit; including length (m/cm), mass (kg/g), temperature (°C), capacity (litres/ml)
- Use >, < and = to compare and order length, mass, volume/capacity

**Statistics:**

- Understand and know how to construct simple pictograms, tally charts, block diagrams and simple tables
- Begin to answer questions by counting/sorting, and about totalling/comparing categorical data

**Explorify links:**

[Rich pickings](#)

[Spring flowers](#)

[Shooting sprouts](#)

[Types of apple](#)

[Winter scenes](#)

[Brown and sticky](#)

[Timewarp plants](#)

[Types of leaves](#)

[Brill gills](#)

[Curious crown](#)

[Do you need big seeds to grow big plants?](#)

[What if plants could move from one place to another?](#)

**Possible careers/jobs:**

Park ranger (maintains parks)

Farmer (grows crops and raises animals for food)

Gardener (creates and maintains gardens and green spaces)

Tree surgeon (plants, maintains and manages trees)

Forester (works to deliver wood products to the market)