



## Science Skills Progression in Westfield

	Foundation Stage	By the end of Year 2	By the end of Year 4	By the end of Year 6
<b>Ideas and evidence</b>	<p>ELGs:</p> <p>Understanding of the World:</p> <ol style="list-style-type: none"> <li>Children know about similarities and differences in relation to places, objects, materials and living things.</li> <li>They talk about the features of their own immediate environment and how environments might vary from one another.</li> <li>They make observations of animals and plants and explain why some things occur and talk about changes.</li> </ol>		<ol style="list-style-type: none"> <li>They recognise <i>why</i> it is important to collect data to answer questions.</li> </ol>	<ol style="list-style-type: none"> <li>Pupils recognise that scientific ideas are based on evidence.</li> <li>Pupils describe how experimental evidence and creative thinking have been combined to provide a scientific explanation for example, Jenner's work on vaccination.</li> <li>They select from a range of sources of information.</li> </ol>
<b>Planning</b>		<ol style="list-style-type: none"> <li>Ask simple questions and recognise that these can be answered in different ways.</li> <li>With support, they make suggestions about how to answer questions.</li> <li>They find things out using secondary sources of information.</li> </ol>	<ol style="list-style-type: none"> <li>Pupils respond to suggestions and put forward their own ideas about how to find the answer to a question.</li> <li>They use simple texts to find information.</li> <li>Set up and conduct scientific enquiries to answer relevant questions that they have posed.</li> <li>Where carrying out an appropriate fair test, with some help, they recognise and explain why it is fair.</li> </ol>	<ol style="list-style-type: none"> <li>Plan different types of scientific enquiries to answer questions that they have posed selecting the most appropriate ways to answer their questions.</li> <li>They recognise and control variables and explain why these need to be controlled.</li> <li>They use test results and information from sources provided for them to make predictions where appropriate.</li> <li>Where appropriate, they set up further comparative and fair tests.</li> <li>When the investigation involves a fair test, they identify the key factors to be considered.</li> <li>Where appropriate, they make predictions based on their scientific knowledge and understanding.</li> </ol>
<b>Carrying out</b>		<ol style="list-style-type: none"> <li>Observe closely using simple equipment including making observations over a period of time.</li> <li>They observe and compare objects, living things and events.</li> <li>Perform simple tests.</li> </ol>	<ol style="list-style-type: none"> <li>Pupils make careful observations and take accurate measurements using standard units and a range of simple equipment including thermometers and data loggers.</li> </ol>	<ol style="list-style-type: none"> <li>They select apparatus for a range of tasks and plan to use it effectively.</li> <li>They make a series of, observations, comparisons and take accurate and precise</li> </ol>

				measurements using scientific equipment.
<b>Recording and presenting data</b>		<ol style="list-style-type: none"> <li>1. Pupils describe or respond appropriately to simple features of objects, living things and events they observe communicating findings in simple ways for example, talking about their work and through drawings and simple charts.</li> <li>2. They use appropriate scientific language to communicate their ideas and record their observations using simple tables where appropriate.</li> </ol>	<ol style="list-style-type: none"> <li>1. Pupils gather, record, classify and present their data in a variety of ways to help answer questions.</li> <li>2. Pupils record and report their findings in a variety of ways e.g. using simple scientific language, drawings, labelled diagrams and tables.</li> <li>3. They report their findings orally and in a written scientific explanation.</li> </ol>	<ol style="list-style-type: none"> <li>1. They record data and results of increasing complexity e.g. using diagrams, tables, scatter graphs, bar graphs and line graphs.</li> <li>2. They report findings from enquiries orally and in writing.</li> <li>3. They use appropriate scientific language and conventions to communicate quantitative and qualitative data.</li> <li>4. They identify evidence that refutes and supports their ideas.</li> </ol>
<b>Interpreting and evaluating</b>		<ol style="list-style-type: none"> <li>1. They use their observations and ideas to gather information to help answer questions.</li> <li>2. They say whether what happened was what they expected.</li> </ol>	<ol style="list-style-type: none"> <li>1. They use results to draw simple conclusions, make predictions, suggest improvements and raise further questions.</li> <li>2. They use straightforward scientific evidence such as simple patterns in recorded measurements to answer questions or to support their findings.</li> <li>3. With help, they look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions.</li> </ol>	<ol style="list-style-type: none"> <li>1. They explain their results from an enquiry pointing out and interpreting patterns in their data.</li> <li>2. They begin to relate their conclusions to these patterns and to scientific knowledge and understanding.</li> <li>3. They suggest improvements in their work, giving reasons and include explanations of a degree of trust in their results.</li> <li>4. They begin to repeat observations and measurements and offer simple explanations for any differences they encounter.</li> <li>5. They draw conclusions that are consistent with the evidence and begin to relate these to scientific knowledge and understanding.</li> </ol>

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