



# Launton Church of England Primary School



## Science progression document Working Scientifically

<p><b>End of EYFS</b></p>	<p><b>Nursery:</b></p> <ul style="list-style-type: none"> <li>• Use their senses to explore natural materials. Talk about the different materials.</li> <li>• Explore collections of materials with similar/different properties.</li> <li>• Explore how things work.</li> <li>• Can plant seeds and care for growing plants.</li> <li>• Begin to understand the need to respect and care for the natural environment and living things.</li> <li>• Can explore and talk about different forces they can feel.</li> </ul>	<p><b>Reception:</b></p> <ul style="list-style-type: none"> <li>• Can explore the natural world around them.</li> <li>• Describe what they see, hear and feel whilst outside</li> <li>• Understands the effect of changing seasons on the natural world around them.</li> <li>• Can name and describe people who are familiar to them</li> <li>• Can use all of their senses in hands on exploration of natural materials</li> <li>• Understand key features of the life cycle of a plant and an animal.</li> <li>• Talks about the differences between materials and changes they notice</li> <li>• Explores and talks about different forces they can feel</li> </ul>
---------------------------	---	---

<p>How well can pupils do the following?</p>	<p><b>Ask questions</b></p>	<p><b>Practical enquiries</b> Observe closely, using simple equipment Set up simple practical enquiries and comparative and fair tests</p>	<p><b>Perform simple tests</b> Make accurate measurements using standard units, using a range of equipment e.g. thermometers and data loggers</p>	<p><b>Identify and classify</b></p>	<p><b>Use observations and ideas to suggest answers to questions</b></p>	<p><b>Gather and record data to help in answering questions.</b></p>	<p><b>Results</b></p>	<p><b>Identify differences, similarities or changes related to simple, scientific ideas and processes</b></p>	<p><b>Use straightforward, scientific evidence to answer questions or to support their findings.</b></p>
<p><b>End KS1/Milestone 1</b></p>	<p>Generally, children can ask simple questions.  Generally, children ask</p>	<p>Children can make close observations over time, using equipment.</p>	<p>Generally, children can perform simple tests.  Some children may be</p>	<p>Generally, children have an ability to classify.  Some children may be</p>	<p>Generally, children make systematic observations and measurements of what is</p>	<p>Generally, children's observations are recorded using ICT and on</p>			

	<p>questions that can be tested.</p> <p>Some children may be working at a greater depth level and can ask questions that lead to scientific enquiry independently.</p>	<p>Some children may be working at a greater depth level and can: explain, without support, why something has happened using scientific vocabulary.</p>	<p>working at a greater depth level and can: begin to perform more complex tests, such as tests with only one variable.</p>	<p>working at a greater depth level and can: independently classify using more complicated taxonomies</p>	<p>observed using appropriate vocabulary.</p> <p>Some children may be working at a greater depth level and can: without support, make systematic observations and measurements of what is observed.</p>	<p>paper, using text, drawings and labelled diagrams.</p> <p>Generally, data is gathered and recorded to help in answering questions.</p> <p>Prepared tables and block graphs are generally used to help record data.</p> <p>Some children may be working at a greater depth level and can: without support, use prepared tables and block graphs to help record data</p>			
--	--	---	---	---	---	---	--	--	--

End of LKS2/Milestone 2	Children can generally ask relevant questions that lead to scientific investigation.	Simple practical enquiries and comparative and fair tests are set up, with prompts if necessary.	Generally, accurate measurements using standard units are made using a range of equipment.	Generally, simple scientific language, drawings, labelled diagrams, bar charts and tables are used to record findings.	Generally, observations are recorded, and data is classified and presented, using tables, charts, text and labelled diagrams.	Generally, it is recognised why it is important to collect data in order to answer a question, and data is gathered, recorded, classified and presented in a variety of ways to help in answering questions.	Results are used to draw simple conclusions and suggest improvements.	Differences, similarities or changes related to simple, scientific ideas and processes are identified.	Generally, appropriate scientific language and straightforward, scientific evidence is used to answer questions or to support findings.
	Generally, there is an awareness that there are different ways of asking scientific questions	Some children may be working at a greater depth level and can: without support, set up practical enquires and comparative and fair tests and set up the most appropriate approach to an investigation.	Some children may be working at a greater depth level and can: without support, make accurate measurements using standard units and accurate readings are taken.	Some children may be working at a greater depth level and can: without support, make accurate measurements using standard units and take accurate readings.	Some children may be working at a greater depth level and can: without support, select the most appropriate way to present data. Points are plotted to make simple line graphs.	Some children may be working at a greater depth level and can: without support, take observations including those for repeat readings and record using tables and bar chart.	Generally, children make predictions as to what may happen before any tests are carried out.	Some children may be working at a greater depth level and can: without support identify differences, similarities or changes related to more complex scientific ideas.	Some children may be working at a greater depth level and can: use scientific evidence to answer questions or to support findings.
	Some children may be working at a greater depth level and can: ask scientific questions and personal ideas are offered without support					Some children may be working at a greater depth level and can: without support, take observations including those for repeat readings and record using tables and bar chart.	Some children may be working at a greater depth level and can: independently, draw simple conclusions and suggest improvements.		

<p><b>End of UKS2/Milestone 3</b></p>	<p>Generally, simple enquiries are planned.</p> <p>Variables are recognised and controlled where necessary.</p> <p>Questions to clarify what is being investigated are encouraged by a teacher.</p> <p>Some children may be working at a greater depth level and can: independently plan enquiries, including recognising and controlling variables where necessary.</p>	<p>Generally, equipment Children select and use appropriate techniques, apparatus, and materials during fieldwork and laboratory work.</p> <p>Some children may be working at a greater depth level and can: independently use apparatus and materials during fieldwork and laboratory work.</p>	<p>Generally, children take measurements, using a range of scientific equipment, with increasing accuracy and precision.</p> <p>Some children may be working at a greater depth level and can: without support, take measurements using a range of scientific equipment with increasing accuracy and precision.</p>	<p>Generally, children record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models.</p> <p>Generally, the most appropriate ways to present evidence and findings are selected.</p> <p>Some children may be working at a greater depth level and can: without support, data and results of increasing complexity are recorded using scientific complexity are recorded using scientific diagrams and</p>	<p>Findings from enquiries are reported, including oral and written explanations of results and explanations involving casual relationships and conclusions.</p> <p>Some children may be working at a greater depth level and can: report findings from</p>	<p>Generally, children use appropriate scientific language.</p> <p>Some children may be working at a greater depth level and can: use well-chosen scientific language without support.</p>	<p>Generally, test results are used to make predictions and set up further comparative tests, reasons are suggested for these and previous knowledge is used where appropriate.</p> <p>Some children may be working at a greater depth level and can: test out patterns found in relationships from results and make further predictions.</p>	<p>Generally, children use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Some children may be working at a greater depth level and can: without support, use models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.</p>	<p>Generally, children use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Some children may be working at a greater depth level and can: without support, use models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.</p>
---------------------------------------	--	--	---	---	---	--	---	--	--

labels,  
classification  
keys, tables,  
bar and line  
graphs and  
models.