

# Working Scientifically Progression

<b>Enquiry types taught in every year group</b>  (See unit overviews for when to teach each type)	<b>Identifying, grouping and classifying</b>	Making observations to name, sort and organise items.
	<b>Observing over time</b>	Observing changes that occur over a period of time ranging from minutes to months.
	<b>Pattern seeking</b>	Identifying patterns and looking for relationships in enquiries where variables are difficult to control.
	<b>Comparative and fair testing</b>	Changing on variable to see its effect on another, whilst keeping all others the same.
	<b>Research using secondary sources</b>	Using secondary sources of information to answer scientific questions.

Early Years	Year One	Year Two
	<ul style="list-style-type: none"> <li>identifying and classifying</li> <li>performing simple tests</li> <li>gathering and recording data to help in answering questions</li> </ul>	<ul style="list-style-type: none"> <li>asking simple questions and recognising that they can be answered in different ways</li> <li>observing closely, using simple equipment</li> <li>using their observations and ideas to suggest answers to questions</li> </ul>

Year Three	Year Four
<ul style="list-style-type: none"> <li>asking relevant questions and using different types of scientific enquiries to answer them</li> <li>recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>identifying differences, similarities or changes related to simple scientific ideas and processes</li> </ul>	<ul style="list-style-type: none"> <li>setting up simple practical enquiries, comparative and fair tests</li> <li>making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</li> <li>reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>using straightforward scientific evidence to answer questions or to support their findings.</li> </ul>

Year Five	Year Six
<ul style="list-style-type: none"> <li>planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</li> </ul>	<ul style="list-style-type: none"> <li>taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>using test results to make predictions to set up further comparative and fair tests</li> <li>identifying scientific evidence that has been used to support or refute ideas or arguments</li> </ul>