

## Progression of Disciplinary Skills in Science

<b>EYFS</b>	<ul style="list-style-type: none"> <li>● <b>Explore</b> the natural world around them</li> <li>● <b>Describe</b> what they see, hear and feel whilst outside</li> <li>● <b>Recognise</b> some environments that are different from the one in which they live.</li> <li>● <b>Understand</b> the effect of changing seasons on the natural world around them.</li> </ul> <ul style="list-style-type: none"> <li>● <i>Observe</i></li> <li>● <i>Draw pictures</i></li> <li>● <i>Interact</i></li> <li>● <i>Name</i></li> <li>● <i>Describe</i></li> </ul>	
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Skills:	Year 1/2	Year 3/4	Year 5/6
<b><u>Ask Questions</u></b>	<ul style="list-style-type: none"> <li>● Ask simple questions.</li> <li>● <b>Ask simple questions and recognise that they can be answered in different ways</b></li> </ul>	<ul style="list-style-type: none"> <li>● Ask questions and understand there are different enquiry types they could use to answer them.</li> <li>● <b>Ask relevant questions and use different types of scientific enquiry to answer them.</b></li> </ul>	<ul style="list-style-type: none"> <li>● Ask scientific questions and begin to understand which questions would be best suited to each enquiry type.</li> <li>● Ask relevant scientific questions and choose which enquiry type would be best suited to answer them.</li> </ul>
<b><u>Plan</u></b>	<ul style="list-style-type: none"> <li>● Verbally state what they are going to investigate.</li> <li>● Make simple predictions based on a question.</li> <li>● Identify what they will change and keep the same.</li> </ul>	<ul style="list-style-type: none"> <li>● Make relevant predictions.</li> <li>● Identify what they will change, observe and keep the same.</li> <li>● With support, set up simple practical enquiries.</li> <li>● Make predictions based on simple scientific knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>● Make predictions based on scientific knowledge.</li> <li>● With support, plan different types of scientific enquiry. Where appropriate, identify the dependent, independent and controlled variables.</li> <li>● Make predictions based on scientific knowledge.</li> </ul>

		<ul style="list-style-type: none"> <li>Identify what they will change, observe or measure and keep the same.</li> <li><b>Set up simple practical enquiries, comparative and fair tests.</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</b></li> </ul>
<b><u>Make Observations</u></b>	<ul style="list-style-type: none"> <li>Observe closely.</li> <li><b>Observe closely, using simple equipment.</b></li> </ul>	<ul style="list-style-type: none"> <li>Begin to use scientific equipment to make observations.</li> <li><b>Make systematic and careful observations.</b></li> </ul>	<ul style="list-style-type: none"> <li>Use a range of scientific equipment to make systematic and careful observations.</li> <li>Use a range of scientific equipment to make systematic and careful observations with increased complexity.</li> </ul>
<b><u>Take Measurements</u></b>	<ul style="list-style-type: none"> <li>Carry out simple tests using nonstandard measurements when appropriate.</li> <li><b>Perform simple tests</b> using standard units when appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Carry out tests and simple experiments and take measurements using standard units.</li> <li><b>Take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</b></li> </ul>	<ul style="list-style-type: none"> <li>Take accurate measurements using a range of scientific equipment. Start to take repeat readings when appropriate.</li> <li><b>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</b></li> </ul>
<b><u>Gather, record and classify data</u></b>	<ul style="list-style-type: none"> <li>Gather and record simple data.</li> <li>Sort objects and living things into groups based on simple properties.</li> <li><b>Gather and record data to help in answering questions.</b></li> <li><b>Identifying and classifying.</b></li> </ul>	<ul style="list-style-type: none"> <li>Gather and record data in different ways to help answer questions.</li> <li><b>Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables.</b></li> <li><b>Gather, record and classify data in a variety of ways to help in answering questions.</b></li> <li><b>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</b></li> </ul>	<ul style="list-style-type: none"> <li>Gather, record and classify data with increasing complexity to help in answering questions.</li> <li><b>Record data using scientific diagrams and labels, classification keys, tables, bar and line graphs.</b></li> <li><b>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</b></li> </ul>

<p><b><u>Present Findings</u></b></p>	<ul style="list-style-type: none"> <li>● Explain what they found out to an adult or a partner.</li> <li>● <b>Talk about what they have found out and how they found it out. (non-statutory)</b></li> </ul>	<ul style="list-style-type: none"> <li>● Report on findings from enquiries, including oral and written explanations.</li> <li>● <b>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</b></li> </ul>	<ul style="list-style-type: none"> <li>● Report and present findings from enquiries, including conclusions.</li> <li>● Begin to identify causal relationships in oral and written forms such as displays and other presentations.</li> <li>● <b>Report and present 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.</b></li> </ul>
<p><b><u>Answer Questions and Make Conclusions</u></b></p>	<ul style="list-style-type: none"> <li>● Answer simple questions.</li> <li>● <b>Use their observations and ideas to suggest answers to questions.</b></li> </ul>	<ul style="list-style-type: none"> <li>● Make simple conclusions.</li> <li>● Use results, findings or observations to answer questions.</li> <li>● <b>Use straightforward scientific evidence to answer questions or to support their findings.</b></li> <li>● <b>Use results to draw simple conclusions.</b></li> <li>● <b>Begin to identify differences, similarities or changes related to simple ideas or processes</b></li> </ul>	<ul style="list-style-type: none"> <li>● Use scientific evidence to answer questions.</li> <li>● Make conclusions based on scientific evidence and from their own testing and findings.</li> <li>● <b>Identify differences, similarities or changes related to simple ideas or processes.</b></li> <li>● Use scientific evidence to answer questions.</li> <li>● Make conclusions based on scientific evidence and from their own testing and findings.</li> <li>● <b>Identify scientific evidence that has been used to support or refute ideas or arguments</b></li> </ul>
<p><b><u>Evaluate</u></b></p>		<ul style="list-style-type: none"> <li>● Suggest questions for further investigation.</li> <li>● <b>Begin to make predictions for new values, suggest improvements and raise further questions.</b></li> </ul>	<ul style="list-style-type: none"> <li>● <b>Make predictions for new values, suggest improvements and raise further questions.</b></li> <li>● <b>Use test results to make predictions to set up further comparative and fair tests.</b></li> <li>● Suggest investigation improvements including accuracy of results.</li> <li>● Provide some simple examples of how to extend the investigation.</li> </ul>

- **Statements that have been taken directly from the NC are highlighted in bold.**