

# Working scientifically progression of skills.

Strand	EYFS	KS1	LKS2	UKS2
Questioning	<p><b>Communication and Language Understanding 30 -50 months:</b> (15) Begin to understand 'why' and 'how' questions.</p> <p>(ELG (20)) they answer 'why' and 'how' questions about their experiences and in response to stories and events.</p> <p>Speaking 30-50 months: (26) Question why things happen and gives explanations. Asks e.g. who, what, when, how.</p>	<p>asking simple questions</p> <p>start to recognise that questions could be answered with different tests</p>	<p>Start to make decisions about different types of scientific enquiries that answer questions.</p>	<p>Asking own questions about scientific phenomena including more abstract ideas.</p> <p>Explore and talk about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically.</p>
Observing	<p><b>Speaking 30-50 months:</b> (25) Uses talk to connect ideas, explain what is happening, and anticipate what might happen next, recall and relive past experiences.</p>	<p>observing closely during testing</p> <p>Using simple equipment and measurement to enhance observations.</p> <p>identifying and with help classify</p> <p>Begin to notice patterns and relationships.</p>	<p>making systematic and careful observations using notes and simple tables</p> <p>taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>Sorting and classify using simple keys.</p>	<p>taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>Recognise that scientific ideas change and develop over time.</p>
Testing	<p><b>Exploring and using media and materials, 30-50 months:</b> (22) Realise tools can be used for a purpose. (30) Uses simple tools and techniques competently and appropriately. (31) Selects appropriate resources and adapts work where necessary. (32) Selects tools and techniques needed to shape, assemble and join materials they are using.</p>	<p>Undertaking given simple, comparative test</p> <p>Gathering, recording and communicating data and findings to help in answering questions.</p>	<p>setting up simple practical enquiries, comparative and fair tests</p> <p>recording findings using drawings, labelled diagrams, keys, bar charts, and tables</p>	<p>planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p>
Conclusions	<p>40-60+ months (35) Uses talk to organise, sequence and clarify thinking, ideas, feelings and events.</p> <p>(ELG (39)) They develop their own narratives and explanations by connecting ideas or events.</p>	<p>using their observations and ideas to suggest answers to questions</p> <p>Begin to notice patterns and relationships.</p>	<p>using results to draw simple conclusions, make predictions for new values,</p> <p>suggest improvements and raise further questions</p> <p>identifying differences, similarities or changes related to simple scientific ideas and processes</p> <p>Identify patterns related to scientific enquiry.</p> <p>Recognise when and how secondary sources might help them to answer questions that cannot be answered +through practical investigations.</p>	<p>using test results to make predictions to set up further comparative and fair tests</p> <p>reporting and presenting findings from enquiries,</p> <p>including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>Identifying scientific evidence that has been used to support or refute ideas or arguments.</p>
Vocabulary	<p>40-60+ months (32) Extends vocabulary, especially, by grouping and naming, exploring the meaning and sounds of new words.</p>	<p>use scientific language and read and spell age-appropriate scientific vocabulary</p>	<p>recording findings using simple scientific language</p>	<p>Pupils should read, spell and pronounce scientific vocabulary correctly.</p>