

Working Scientifically in Lower Key Stage Two (Years 3 and 4)

Ideas & Questions	Planning		
	Planning an approach	Equipment	Variables
<ul style="list-style-type: none"> Asks relevant questions and using different types of scientific enquiries to answer them. Explains the purpose of a variety of scientific and technological developments 	<ul style="list-style-type: none"> Sets up simple practical enquiries comparative and fair tests Begins to make their own decisions about the most appropriate type of scientific enquiry to answer questions Begins to make decisions about what observations to make and how long to make them for 	<ul style="list-style-type: none"> Begins to choose the type of simple equipment that might be used from a reasonable range Uses appropriate equipment and measurements with reasonable accuracy 	<ul style="list-style-type: none"> Recognises when a simple fair test is needed With help, decides how to set up a fair test and control variables
Obtaining & Presenting Evidence			
Observing & measuring	Secondary sources	Recording information & data	Presenting evidence
<ul style="list-style-type: none"> Makes systematic and careful observations Makes accurate measurements using standard units, using a range of equipment e.g. data loggers and thermometers 	<ul style="list-style-type: none"> Recognises when and how secondary sources might help answer questions that cannot be answered through practical investigations 	<ul style="list-style-type: none"> Gathers and records data in a variety of ways to help in answering questions Prepares own format for recording data Makes decisions about how to record and analyse the data 	<ul style="list-style-type: none"> Records and presents findings using drawings, labelled diagrams, keys tally charts, Carroll diagrams, Venn diagrams, bar charts and tables Reports on findings from enquiries, in simple scientific language, using oral and written explanations, display or presentations of results and conclusions
Considering & Evaluating Evidence			
Looking for patterns	Explaining results	Communication	Evaluating
<ul style="list-style-type: none"> Uses observable and other criteria to group, sort and classify in different ways (inc. simple keys & branching databases) Identifies differences, similarities or changes related to simple scientific ideas and processes With help, looks for changes, patterns, and relationships in their data 	<ul style="list-style-type: none"> With help, uses results to draw simple conclusions and answers questions using appropriate level of knowledge and their own experiences Uses straightforward scientific evidence to answer questions or support their findings 	<ul style="list-style-type: none"> Uses relevant scientific language to discuss their ideas and communicate their findings 	<ul style="list-style-type: none"> With support, uses results to suggest improvements to what they have done With support, raise further questions (e.g. arising from the data) With support, makes predictions for new values within or beyond their data collected