















Working Scientifically Skills:		Working Scientifically Progression Overview: Disciplinary Knowledge		
Asking Questions and Being Curious	EYFS: The I			JKS2
	<p>3-4: Talk about what they see, using a wide vocabulary. -Explore how things work.</p> <p>4-5: Explore the natural world around them.</p>	<p>Explore the world and raise questions.</p> <p>Asking simple questions and recognising that they can be answered in different ways.</p>	<p>Raise questions about the world.</p> <p>Asking relevant questions and using different types of scientific enquiries to answer them.</p>	<p>Use science experiences to explore ideas and raise different kinds of questions.</p> <p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p>
<p>Practical Skills: Making Observations and Taking Measurements</p>   	<p>ELG: Explore the natural world around them, making observations and drawing pictures of animals and plants.</p>	<p>Observing closely</p> <p>Using simple equipment</p> <p>Performing simple tests.</p> <p>Make simple measurements using equipment.</p>	<p>Setting up simple practical enquiries.</p> <p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.</p> <p>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</p>	<p>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p>Make decisions about their own measurements (what equipment to use, what measurements to take, how long to make them for, whether to repeat them,</p>
<p>Enquiry Types</p>      	<p>Simple Tests</p> <p>Observations Over Time</p> <p>Identifying, Grouping and Classifying</p> <p>Problem Solving</p>	<p>Comparative Tests (simple tests)</p> <p>Identifying, Grouping and Classifying</p> <p>Observations Over Time</p> <p>Researching (ask people questions and use simple secondary sources to find answers).</p>	<p>Comparative/Fair Tests (deciding how to set one up)</p> <p>Grouping, Sorting and Classifying (deciding which criteria needed)</p> <p>Pattern Seeking (deciding what data to collect when identifying relationships)</p> <p>Researching (recognise when and how to use secondary sources to help answer questions)</p>	<p>Comparative/Fair Tests</p> <p>Problem Solving</p> <p>Grouping, Sorting and Classifying (use and develop keys)</p> <p>Pattern Seeking (in the natural environment)</p> <p>Researching (recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact).</p>
Enquiry Types (ALL)	Problem Solving; Identifying, Grouping and Classifying; Pattern Seeking; Observations Over Time; Researching; Comparative/Fair Tests			

<p>Recording Findings, Collecting Data and Results</p> 	<p>4-5: Describe what they see, hear and feel whilst outside. ELG: Explore the natural world around them, making observations and drawing pictures of animals and plants.</p>	<p>Gathering and recording data to help in answering questions. E.g:</p> <ul style="list-style-type: none"> -Tally Charts -Tables -Labelled Drawings <p>Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them. E.g:</p> <ul style="list-style-type: none"> -Carroll diagrams -Venn Diagrams 	<p>Recording findings using:</p> <ul style="list-style-type: none"> -Simple scientific language, -Tables -Bar Charts -Identification Keys -Labelled Diagrams -Drawings -Standard units <p>Make decisions about how to record and analyse data.</p>	<p>Recording data and results of increasing complexity using:</p> <ul style="list-style-type: none"> -Bar and Line Graphs -Scatter Graphs -Tables -Classification Keys -Labels -Scientific diagrams
<p>Reporting and Presenting Finding</p> 		<p>Using scientific language to describe findings in:</p> <ul style="list-style-type: none"> -Posters -Fact Files -Oral Presentations 	<p>Reporting on findings from enquiries, including:</p> <ul style="list-style-type: none"> -Visual Displays -Written explanations -Oral Presentations -Presentations of results and conclusions <p>Use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences.</p>	<p>Reporting and presenting findings from enquiries using:</p> <ul style="list-style-type: none"> -Visual Displays -Written explanations -Oral Presentations <p>Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas and should talk about how scientific ideas have developed over time.</p>
<p>Drawing Conclusions</p> 		<p>Using observations and ideas to suggest answers to questions.</p>	<p>Draw simple conclusions</p> <p>Using straightforward scientific evidence to answer questions or to support their findings.</p>	<p>Presenting findings from enquiries with:</p> <ul style="list-style-type: none"> -Conclusions -Causal relationships -Explanations -Degree of trust in results drawing conclusions
<p>Evaluating</p> 	<p>ELG: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p>	<p>Noticing patterns and relationships in observations over time.</p>	<p>Using results to:</p> <ul style="list-style-type: none"> -Draw simple conclusions -Make predictions for new values -Suggest improvements -Raise further questions <p>Identifying differences, similarities or changes related to simple scientific ideas and processes.</p>	<p>Using test results to make predictions to set up further comparative and fair tests.</p> <p>Identifying scientific evidence that has been used to support or refute ideas or arguments.</p>
<p>Blue writing indicates 'Non-Statutory' guidance in the National Curriculum.</p>				