

# Progression in Working Scientifically



	EYFS	KS1		Lower KS2		Upper KS2	
steps	Nursery/Reception	Y1	Y2	Y3	Y4	Y5	Y6
Planning – Stimulus, exploration, Prediction, variables	<ul style="list-style-type: none"><li>• Talk about the lives of people around them and their roles in society (Utw: Past and Present, Rec)</li><li>• Ask questions to find out more (Speaking: Rec)</li></ul>	<ul style="list-style-type: none"><li>• Ask simple questions and recognising that they can be answered in different ways</li></ul>		<ul style="list-style-type: none"><li>• Asking relevant questions and using different types of scientific enquiries to answer them</li><li>• Setting up simple practical enquiries, comparative and fair test</li></ul>		<ul style="list-style-type: none"><li>• Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li></ul>	
Observing- Observation : looking at results	<ul style="list-style-type: none"><li>• Explore different materials freely, in order to develop ideas about how to use them and what to make (EASD: creating with Materials 3-4 Year olds</li><li>• Explore, use and refine a variety of artistic effects to express their ideas and feelings (EASD Rec)</li><li>• Make observations and draw pictures of</li></ul>	<ul style="list-style-type: none"><li>• Observing closely, using simple equipment</li><li>• Performing simple tests</li><li>• Identifying and classifying</li></ul>		<ul style="list-style-type: none"><li>• Making systematic and careful observations and where appropriate accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</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></ul>	

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	animals and plants (UttW: NW Rec)			
Recording – Communicating results	<ul style="list-style-type: none"> <li>• use talk to organise themselves (CGL: Speaking 3-4 Year olds)</li> <li>• use talk to help work out problems and organise thinking and activities (CGL: Speaking Rec)</li> <li>• Take part in simple pretend play using an object to represent something else (EAGD: BIGE 3-4 Year olds)</li> </ul>	<ul style="list-style-type: none"> <li>• Gathering and recording data to help in answering questions</li> </ul>	<ul style="list-style-type: none"> <li>• Gathering, recording, classifying and presenting data in a variety of ways to help in answering the question</li> <li>• Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, keys, and tables, reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> </ul>	<ul style="list-style-type: none"> <li>• Recording data and results of increasing complexity using scientific diagrams and labels, classification, keys, scatter graphs, bar and line graphs,</li> <li>• using test results to make predictions to set up further comparative and fair tests</li> </ul>
Concluding – Communicating findings with justifications	<ul style="list-style-type: none"> <li>• Being able to express a point of view (CGL: Speaking 3-4 Year olds)</li> <li>• Offer explanations for why things might</li> </ul>	<ul style="list-style-type: none"> <li>• Using their observations and ideas to suggest answers to questions</li> </ul>	<ul style="list-style-type: none"> <li>• Reporting on findings from enquiries, including oral and written, displays or presentations of results and conclusions</li> <li>• Identifying differences, similarities or changes</li> </ul>	<ul style="list-style-type: none"> <li>• Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree in trust in results, in oral and written forms such as</li> </ul>

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	happen (CGL: Speaking ELGO		<p>related to simple scientific ideas and processes</p> <ul style="list-style-type: none"> <li>• using straightforward scientific evidence to answer questions or to support their findings</li> <li>• using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> </ul>	displays and other presentations
Evaluating - Analysis- any patterns in the findings? and refine - How can work be improved?			<ul style="list-style-type: none"> <li>• using results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests</li> </ul>	<ul style="list-style-type: none"> <li>• identifying scientific evidence that has been used to support or refute ideas or arguments</li> </ul>