Working Scientifically – Progression of skills

	EYFS	KS1		Lower KS2		Upper KS2	
	ELG (The Natural World)	Y1	Y2	Y3	Y4	Y5	Y6
Planning **Asking Questions Setting up experiments**		• beginning to ask simple questions and recognise that they can be answered in different ways	• asking simple questions and recognising that they can be answered in different ways	• beginning to ask relevant questions and using different types of scientific enquiries to answer them • beginning to set up simple practical enquiries, comparative and fair tests	• asking relevant questions and using different types of scientific enquiries to answer them • setting up simple practical enquiries, comparative and fair tests	• beginning to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
Observing **Observing and measuring**	Make simple observations of the world around them (plants and animals)	• beginning to observe closely, using simple equipment • performing simple tests with support • beginning to identify and classify	• observing closely, using simple equipment • performing simple tests • identifying and classifying	• beginning to make systematic and careful observations and where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers (with support)	• making systematic and careful observations and where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	• beginning to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate	• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate

Recording **Recording data**	Draw pictures from first hand observations Begin to group and sort data	• beginning to gather and record data to help in answering questions	• gathering and recording data to help in answering questions	• beginning to gather, record, classify and present data in a variety of ways to help in answering questions • beginning to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	• gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	• beginning to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
Concluding **Interpreting and communicating results**	Use observations and experience to give similarities and differences	• beginning to use their observations and ideas to suggest answers to questions	• using their observations and ideas to suggest answers to questions	• beginning to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • beginning to identify differences, similarities or changes related to simple scientific ideas and processes • beginning to use straightforward scientific evidence to answer questions or to support their findings	• reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • identifying differences, similarities or changes related to simple scientific ideas and processes • using straightforward scientific evidence to answer questions or to support their findings	• beginning to report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.	• reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

Evaluating **Making predictions** **Evaluating**				• beginning to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	•using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	• beginning to use test results to make predictions to set up further comparative and fair tests. • beginning to identify scientific evidence that has been used to support or refute ideas or arguments	• using test results to make predictions to set up further comparative and fair tests. • identifying scientific evidence that has been used to support or refute ideas or arguments