Science progression in working scientifically skills

Strand	EYFS	KS1	LKS2	UKS2
Asking questions	Ask simple questions.	Ask simple Qs and recognise that they can be answered in different ways.	Ask relevant questions and use different types of enquires to answer them.	Plan different types of enquires to answer their own questions including recognising and controlling variables where necessary.
Setting up enquires	Perform simple tests with adult guidance.	Perform simple tests.	Set up practical enquires, comparative and fair tests.	Use test results to make predictions to set up further comparative and fair tests.
Observing and measuring	Make simple observations.	Observe closely, using simple equipment.	Make systematic and careful observations and where appropriate, take accurate measurements using a range of equipment.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
Recording	Record ideas and findings as a group.	Gather and record data to help in answering questions.	Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.	Record data and results or increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs or bar and line graphs.
Interpret and report	Identify and classify with support.	Identify and classify using scientific vocabulary to communicate ideas.	Report on findings from enquires, including oral and written explanations, displays or presentations of results and conclusions. Identify differences, similarities or changes related to simple scientific ideas and processes.	Report and present findings from enquires, including conclusions and causal relationships, in oral and written forms such as displays and other presentations, using appropriate scientific language.
Evaluate	Discuss possible answers to questions.	Use observations and ideas to suggest answers to questions.	Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.	Explain degree of trust in results in results. Identify and evaluate scientific evidence (their own and others') that has been used to support of refute ideas of arguments.

Science progression in working scientifically skills

Strand	EYFS	KS1	LKS2	UKS2
Vocabulary:	Observe Test Discuss Findings	experience observe changes patterns grouping sorting classifying compare identify (name) data measure record equipment questions test investigate explore magnifying glass / hand lens same different	develop enquiry practical enquiry fair test comparative test relationships conclusion accurate thermometer data logger estimate data diagram key (identifying) table chart bar chart results predictions explanation reason similarity difference question evidence information findings criteria values properties characteristics	variables evidence justify accuracy precision scatter graphs bar graphs line graphs argument (science) causal relationship