

Working Scientifically Whole School Progression

Enquiry Skill	EYFS	KS1	LKS2	UKS2
Ask questions	Show curiosity and ask questions.	Ask simple questions and recognise that they can be answered in different ways.	Ask relevant questions and use different types of scientific enquiries to answer them.	Ask their own questions and plan different types of scientific enquiries to answer them.
Make predictions	Offer explanations for why things might happen.	Use their observations and ideas to suggest answers to questions.	Use results to make predictions for new values.	Use test results to make predictions to set up further comparative and fair tests.
Set up tests	Choose the right resources to carry out their own plan.	Perform simple tests.	Set up simple practical enquiries, comparative and fair tests.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Carry out comparative and fair tests.
Observe and measure	Make observations using their senses and simple equipment.	Observe closely, using simple equipment.	Make systematic and careful observations. Take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Observe changes over different periods of time, noticing patterns, and grouping and classifying things.
Record data	Use drawing to represent ideas.	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 of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
Interpret and communicate results	Talk about what they see, using a wide vocabulary.	Identify and classify.	Use results to draw simple conclusions. Report 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.	Report and present findings from enquiries, including conclusions, causal relationships, and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations. Draw conclusions based on data and observations. Use scientific knowledge and understanding to explain findings.
Evaluate results			Use straightforward scientific evidence to answer questions or support their findings. Use results to suggest improvements and raise further questions.	Identify scientific evidence that has been used to support or refute ideas or arguments. Recognise that scientific ideas change and develop over time. Using evidence to justify ideas.