Science Skills Progression (Year 1-6)

Skill Area	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Questioning & Predicting	Ask simple questions. Make simple predictions.	Use observations and ideas to suggest answers to questions.	Ask relevant questions and identify similarities, differences and changes.	Make sensible predictions. Use evidence to answer questions and suggest further questions.	Apply scientific knowledge to make predictions and hypotheses. Predict outcomes of investigations.	Ask increasingly sophisticated scientific questions. Make predictions based on prior knowledge and identify variables.
Planning & Carrying Out Investigations	Recognise that questions can be answered in different ways. Perform simple tests.	Carry out pre-planned investigations with support.	Set up simple practical enquiries, comparative tests and fair tests.	Identify differences, similarities or changes. Set up and carry out fair tests.	Independently plan comparative and fair tests, identifying independent, dependent and controlled variables.	Plan enquiries and fair tests independently, selecting appropriate methods, variables and equipment.
Observing & Measuring	Observe closely. Use simple equipment.	Gather and record data with support.	Make systematic observations and take measurements using standard units and equipment.	Make careful observations and collect accurate evidence.	Take accurate measurements and record data systematically.	Make precise measurements, selecting appropriate units and equipment.
Recording Results	Talk about findings.	Record data to answer questions.	Use drawings, labelled diagrams, keys, tables and bar charts.	Record findings using scientific language, diagrams, keys, charts and tables.	Record results accurately using tables, graphs and scatter graphs where appropriate.	Present data clearly using tables, graphs, charts, diagrams and classification keys.
Analysing & Interpreting Results	Talk about what was found out.	Begin to use simple scientific language. Identify and classify objects.	Draw simple conclusions and identify patterns using evidence.	Form sensible conclusions from findings. Classify and present data in different ways.	Use evidence and scientific language to explain findings. Identify correlations and limitations.	Draw evidence-based conclusions, explain patterns, identify anomalies and evaluate evidence.
Evaluating Investigations	Beginning to discuss findings.	Beginning to identify what happened.	Suggest improvements and ask further questions.	Suggest further questions and improvements.	Evaluate methods, identify limitations and suggest improvements.	Critically evaluate investigations, identify sources of error and refine future enquiries.
Scientific Vocabulary & Communication	Describe findings orally.	Use simple scientific vocabulary in context.	Report findings orally and in writing using scientific language.	Communicate findings through explanations, presentations and reports.	Use accurate scientific vocabulary to justify conclusions.	Explain and justify conclusions using precise scientific vocabulary and evidence.