

Science Skills Progression Plan Years 1 – 6

Aspect	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Asking and answering questions	Ask questions about the world around them using simple scientific language.	Ask questions and recognise that they can be answered in different ways (including simple secondary sources such as books and video clips). Use their own experiences to make simple predictions.	With guidance, generate relevant questions and use a range of scientific enquiry types to answer them. Use straightforward scientific evidence to make predictions.	Suggest relevant questions and know that they could be answered in a variety of ways. Use scientific evidence to make predictions.	Raise different types of scientific questions. Generate hypotheses based on scientific evidence.	Pose / select the most appropriate line of enquiry to investigate scientific questions. Plan their own enquiries to answer scientific questions.
Investigating	With support, set up simple practical investigations.	Do things in the correct order when performing a simple test and begin to recognise when something is unfair.	Begin to discuss which enquiry type they are carrying out and consider whether tests are fair.	Make decisions about the type of enquiry that needs to be carried out, including recognising when a fair test is necessary and begin to identify variables.	Plan a range of enquiry types. When carrying out comparative or fair tests, identify variables.	Select and plan the most suitable line of enquiry. If this is a comparative or fair test, identify the variables and explain which ones need to be controlled and why.
Observing	Observe closely what is happening, making observations based on their senses.	Observe something closely and describe changes over time.	Make decisions about what to observe during an investigation.	Make systematic and careful observations.	Carry out a range of investigations to find answers to their questions, carrying out systematic and careful observations.	Make their own decisions about which observations to make, using test results and observations to make predictions or set up further tests.
Equipment and measuring	Make simple observations. Take simple measurements using non-standard units of measure.	Use simple equipment to make observations and take measurements using standard and non-standard units of measure.	Make careful observations and, with some support, take accurate measurements using a range of equipment.	Where appropriate, take accurate measurements, using a range of equipment, including thermometers and data loggers.	Take measurements with a range of equipment with increasing accuracy and precision.	Take measurements using a range of equipment with increasing accuracy and precision, taking repeated readings where appropriate. Decide how long to take measurements for checking

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						results with additional readings.
Identifying and classifying	Sort and group objects, materials and living things, with help, according to simple observational characteristics.	Decide, with help, how to group materials, living things and objects, noticing changes over time and begin to see patterns.	Talk about criteria for grouping, sorting and classifying, beginning to see patterns and relationships.	Identify similarities/differences/changes when talking about scientific processes. Use and begin to create simple keys.	Use and develop keys to identify, classify and describe living things and materials.	Identify and explain patterns seen in the natural environment.
Recording and reporting on findings	Record data in simple forms i.e. photographs and drawings	With increasing independence, gather and record necessary data to answer questions and talk about their findings using simple scientific vocabulary.	Gather necessary data and begin to use a greater range of ways to record this data e.g. bar charts and tables. Report on findings from enquiries orally. With support, use written explanations and displays to show results and conclusions.	Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	Record data and results using increasingly scientific language, labelled diagrams, tables, charts and graphs. Report and present their findings in oral and written forms. With support, explain causal relationships.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Report and present findings from enquiries, including conclusions, causal relationships and explanations in oral and written forms.
Analysing data	Use everyday and some scientific language to discuss what they have observed or measured.	Use their observations and ideas to suggest whether the evidence found answers the questions.	Discuss the evidence and use their findings to answer their questions.	Use scientific evidence, as well as their findings, to answer their questions.	Use their findings and relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas.	Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.
Drawing conclusions	Say what they think has changed when/after observing objects, living things or events.	Use simple scientific language to explain what they have found out.	Identify similarities, differences and changes that occur in an investigation.	Identify, with help, changes, patterns, similarities and differences in data to help form conclusions. Use recorded data to make	With support, identify the scientific evidence that has been used to support or refute ideas and arguments.	Identify the validity of the conclusion and discuss whether any improvements need to be made of methodology.



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				predictions, pose new questions and suggest improvements for further enquiries.	Begin to recognise how scientific ideas change over time.	Discuss how scientific ideas develop over time.
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