



Science Skills Progression

Subject:	Working Scientifically	Subject Leader/s:	Catherine Cutler, Sarah Rumbol, Maya Harwood, Roisin Burns, Fiona McManus
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<u>Aspect</u>	Key Stage 1		Lower Key Stage 2		Upper Key Stage 2	
	<u>End of Y1 expectation</u>	<u>End of Y2 expectation</u>	<u>End of Y3 expectation</u>	<u>End of Y4 expectation</u>	<u>End of Y5 expectation</u>	<u>End of Y6 expectation</u>
Asking & answering questions	Use everyday language/begin to use simple scientific words to ask or answer a scientific question.	Suggest ideas, ask simple questions and know that they can be answered/investigated in different ways including simple secondary sources, such as books and video clips.	Use ideas to pose questions, independently, about the world around them.	Suggest relevant questions and know that they could be answered in a variety of ways including sources such as ICT. Answer questions using straight forward scientific evidence.	Raise different types of scientific questions and hypotheses.	Pose the most appropriate line of enquiry to investigate scientific questions.
Investigating	Follow instructions to complete a simple test individually or in a group.	Do things in the correct order when performing a simple test and begin to recognise when something is unfair.	Discuss enquiry methods and describe a fair test.	Make decisions about different enquiries, including recognising when a fair test is necessary and begin to identify variables.	Plan a range of Scientific enquiries, including comparative and fair tests.	Select the most suitable like of enquiry explaining which variables need to be controlled and why, in a variety of fair tests.
Observing	Observe objects, materials and living things and describe what they see.	Observe something closely and describe changes over time.	Make decisions about what to observe in an investigation.	Make systematic and careful observations.	Plan and carry out comparative and fair tests, making 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 comparative or fair tests.

Equipment & measuring	Use simple, non-standard measurements in a practical task.	Use simple equipment, such as hand lenses or egg tines to take measurements, make observations and carry out simple tests.	Take accurate measurements using standard units.	Take accurate measurements using standard units and a range of equipment, including thermometers and data loggers.	Take measurements using a range of scientific equipment with accuracy and precision.	Choose the most appropriate equipment in order to take measurements, explaining how to use it accurately. Decide how long to take measurements for, checking results with additional readings.
Identifying & Classifying	Sort and group objects, materials and living things, with help, according to simple observational features.	Decide with help, how to group materials, living things and objects, noticing changes over time and beginning 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 & reporting on findings	Talk about their findings and explain what they have found out.	Gather data, record and talk about their findings in a range of ways, using simple scientific language.	Record their findings using scientific language and present in note form, writing frames, diagrams, tables and charts.	Choose appropriate ways to record and present data, findings and conclusions for different audiences.	Record data and results of increasing complexity using diagrams, labels, keys, tables and bar and line graphs.	Choose the most effective approach to record and report results, linking to mathematical knowledge.
Analysing data	Use every day or simple scientific language to ask and/or answer a question on given data.	Use simple scientific language to explain what they have found out.	Gather, record and use data in a variety of ways to answer a simple question.	Identify changes, patterns, similarities and differences in data to help form conclusions. Use scientific evidence to support their findings.	Use relevant language and pictures to discuss, communicate and justify their scientific ideas.	Explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.
Drawing conclusions	Explain, with help, what they think they have found out.		Draw a simple conclusion based on evidence from an enquiry.	Use data to make predictions, ask new questions and suggest improvements for further enquiries.	Use a simple mode of communication to justify their conclusions on a hypothesis. Begin	Identify validity of conclusion and required improvement to methodology.

					to recognise how scientific ideas change over time.	Discuss how scientific ideas develop over time.
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