



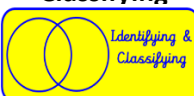






Progression of Working Scientifically Skills from Key Stage 1 to Key Stage 2








	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Questions 	Explore the world around them and raise their own simple questions	Raise their own questions about the world around them and ask relevant questions	Use their science experiences to explore ideas and raise different kinds of questions
Experience of enquiries 	Experience different types of science enquiries including practical activities	Should be given a range of scientific experiences including different types of science enquiries to answer questions	Talk about how scientific ideas have developed over time
How will I find out...? 	Begin to recognise different ways in which they might answer scientific questions	Start to make their own decisions about the most appropriate type of scientific enquiry they could use to answer questions	Select and plan the most appropriate type of scientific enquiry to use to answer scientific questions
Testing 	Carry out simple tests	Set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help to decide how to set it up	Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why
Identifying and Classifying 	Use simple features to compare objects, materials and living things and with help decide how to sort and group them	Talk about criteria for grouping, sorting and classifying and use simple keys	Use and develop keys and other information records to identify, classify and describe living things and materials. Identify patterns that might be found in natural environments.
Research 	Ask people questions and use simple secondary sources to find answers such as books, photos and videos	Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations	Recognise which secondary sources will be the most useful to research their ideas and begin to separate opinion from fact.
Observing 	Observe using simple equipment and with help observe changes over time	Make systematic and careful observations. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used	Make their own decisions about what observations to make and what measurements to use and how long to make them for.



Progression of Working Scientifically Skills from Key Stage 1 to Key Stage 2





	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Pattern Seeking 	With guidance, begin to notice patterns and relationships	Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them	Look for different causal relationships in their data and identify evidence that refutes or supports their ideas
			Identify patterns that might be found in natural environments.
Measuring 	Use simple measurements and equipment e.g. hand lenses, egg timers to gather data	Take accurate measurements using standard units.	Choose the most appropriate equipment to take measurements with increasing precision and explain how to use it accurately.
		Learn how to use a range of equipment such as data loggers and thermometers	Take repeat measures where appropriate
Recording 	Record simple data	Gather, collect and record data from their own observations and measurements in a variety of ways; notes, bar charts, and tables	Decide how to record data and results of increasing complexity from a choice of familiar approaches
		Use standard units, drawings, labelled diagrams, bar charts, tables and keys	Use scientific diagrams, labels, classification keys, tables, scatter graphs, bar and line graphs
Conclusions 	Use their own observations and ideas to suggest answers to questions	With help, pupils should look for changes, patterns, similarities and differences in their data. Make decisions about how to analyse data	Identify scientific evidence that has been used to support or refute ideas or arguments
	Talk about what they have found out and how they found it out	Come up with simple conclusions and answer questions Use straightforward scientific evidence to answer questions to support their findings	
Present Findings 	With help, record and communicate their findings in a range of ways	Use relevant scientific language to discuss their ideas and communicate their findings.	Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas
	Begin to use simple scientific language	Communicate their findings to different audiences including oral presentations, written explanations, displays or presentations of results and conclusions	Use oral and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degree of trust in results



Progression of Working Scientifically Skills from Key Stage 1 to Key Stage 2



Predictions 		With support, identify new questions arising from the data making predictions for new values within or beyond the data they have collected.	Use their results to make predictions
Improvements & further testing 		Find ways of improving what they have already done	Identify when further observations, comparative and fair tests might be needed.