

Working Scientifically Skills Progression							
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Asking and answering questions	<p>Listen attentively and respond to what they hear with relevant questions.</p> <p>Make comments about what they heard and ask questions to clarify their understanding.</p>	Ask simple questions and recognise that they can be answered in different ways	Ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum	Ask relevant questions and use different types of scientific enquiries to answer them	Ask relevant questions and use different types of scientific enquiries to answer them	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	Plan different types of scientific enquiries to answer their own or others' questions, including recognising and controlling variables where necessary
Making observations	<p>Offer explanations for why things might happen.</p> <p>Express their ideas and feelings about their experiences.</p> <p>Describe environment using knowledge from observations.</p>	Use simple equipment to observe closely	Use simple equipment to observe closely including changes over time	Make decisions about what to observe during 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 and measures	Safely use and explore a variety of materials and tools and techniques.	Use simple, nonstandard equipment and measurements in a practical task.	Use simple equipment, such as hand lenses or egg timers to take measurements , make observations and carry out simple tests.	Take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	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	Take measurements , using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
Identifying and classifying	Identify similarities and differences between the natural world.	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 categorising, 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.
Practical enquiry	Share creations, explaining the process they have used.	Follow instructions to complete a simple test individually or in a group.	Perform simple comparative tests	Set up simple practical enquiries, comparative and fair tests	Set up simple practical enquiries, comparative and fair tests	Plan a range of science enquiries, including comparative and fair tests.	Select and plan the most suitable line of enquiry, explaining which variables need to be controlled and why, in a variety of

							comparative and fair tests
Recording and reporting findings	Drawings of their observations, including pictures.	Begin to record simple data. 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 vocabulary	Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	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	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
Drawing conclusions	Participate in small groups discussions, offering their own ideas and explanations for why things happen.	Explain, with help, what they think they have found out.	Communicate his/her ideas, what he/she does and what he/she finds out in a variety of ways	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations

Analysing data Evaluating and raising further questions and predictions	Use simple scientific language of some important processes.	Use every day or simple scientific language to ask and/or answer a question on given data.	Identify simple patterns and/or relationships using simple comparative language.	Gather, record and use data in a variety of ways to answer a simple question.	Identify, with help, changes, patterns, similarities and differences in data to help form conclusions. Use scientific evidence to support their findings.	Use 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.
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Working Scientifically Key Vocabulary			
EYFS	KS1	LKS2	UKS2
Process Change Natural world Describe Know Explain Talk Processes Observations Drawings Pictures environments	Experience Observe Changes Patterns Grouping Sorting Classifying Compare identify (name) data measure record equipment questions test	Develop Enquiry practical enquiry fair test comparative test relationships conclusion accurate thermometer data logger estimate data diagram key (identifying)	Variables Evidence Justify Accuracy Precision scatter graphs bar graphs line graphs argument (science) causal relationship

	<p>investigate</p> <p>explore</p> <p>magnifying glass / hand lens</p> <p>same</p> <p>different</p>	<p>table</p> <p>chart</p> <p>bar chart</p> <p>results</p> <p>predictions</p> <p>explanation</p> <p>reason</p> <p>similarity</p> <p>difference</p> <p>question</p> <p>evidence</p> <p>information</p> <p>findings</p> <p>criteria</p> <p>values</p> <p>properties</p> <p>characteristics</p>	
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