Science Progression Document - Ravenfield Primary Academy

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Planning (PL)	Asking simple questions and recognising that they can be answered in different ways.		Asking relevant questions and using different types of scientific enquiries to answer them.		Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	
	1. I can use everyday language and begin to use simple scientific words to ask or answer a scientific question.	1. I can suggest ideas, ask simple questions and know that they can be answered/investigated in different ways.	1. I can use ideas to pose questions, independently, about the world around them I can answer posed questions with support and scaffolds.	1. I can suggest relevant questions and know that they could be answered in a variety of ways. I can answer scientific questions using straight forward specific evidence.	1. I can raise different types of scientific questions, and hypotheses. 2. I can plan a range of science enquiries, including comparative and fair tests. 3. I can hypothesise, plan and carry out comparative and fair tests, making systematic and careful observations.	1. I can pose/select the most appropriate line of enquiry to investigate scientific questions.
	Performing simple tests		Setting up simple practical enquiries, comparative and fair tests.			
	1. I can follow instructions to complete a simple test individually or in a group.	1. I can complete steps in the correct order when performing a simple test and begin to recognise when something is unfair.	2. I can discuss enquiry methods and describe a fair test. 3. I can make decisions about what to observe during an investigation.	2. I can make decisions about different enquiries, including recognising when a fair test is necessary and begin to identify variables.		
Observing and Measuring (OM)	Observing closely, using simple equipment.		Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.		Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate	
	1. I can observe objects, materials and living things and describe what they see. 2. I can use simple, non-standard measurements in a practical task.	1. I can observe something closely and describe changes over time. 2. I can use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out simple tests.	1. I can take accurate measurements using standard units. 2. I can begin to clearly explain what you can see using scientific language.	1. I can make systematic and careful observations to explore change over time. 2. I can take accurate measurements using standard units and a range of equipment, including thermometers and data loggers.	1. I can take measurements using a range of scientific equipment with increasing accuracy and precision.	1. I can choose the most appropriate equipment in order to take measurements, explaining how to use it accurately. 2. I can decide how long to take measurements for, checking results with additional readings.
Gathering and Recording Data (GR)	Identifying and classifying.		Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.		Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	
	1. I can sort and group objects, materials and living things, with help, according to simple observational features.	1. I can decide, with help, how to group materials, living things and objects, noticing changes over time and beginning to see patterns.	1. I can talk about criteria for grouping, sorting and categorising, beginning to see patterns and relationships. 2. I can gather, record and use data in a variety of ways to answer a simple question.	1. I can gather and record data in a specific way to help in answering questions.	1. I can record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, bar and line graphs and models. 2. I can report and present findings from enquires including conclusions.	1. I can choose the most effective approach to measure, record and report results, linking to mathematical knowledge and use accurate scientific language. I can identify and explain causal relationships in data
			Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.			
			2. I can record their findings using scientific language and present in note form, writing frames, diagrams, tables and charts.	2. I can use and begin to create simple keys, label diagrams, bar charts and tables.		

	Gathering and recording data to help in answering questions.		Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.		Reporting and presenting 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	
	1. I can record and explain, with help, what they think they have found out.	1. I can select gather and record data in a simple form to help explain in simple scientific language to explain what they have found out.	3. I can choose, with help, the most appropriate way to explain and present information. 4. I can develop a simple conclusion based on evidence from an enquiry and observation.	2. I can choose appropriate ways to record and present information, findings and conclusions for different audiences (e.g. displays, oral or written explanations).		
Using observations and measurements (OM)	Using their observations and ideas to suggest answers to questions		Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions		Using test results to make predictions to set up further comparative and fair tests.	
	1. I can talk about their findings what they have found out. 2. I can use everyday or simple scientific language to ask and/or answer a question on given data.	1. I can gather data, record and talk about their findings, in a range of ways, using simple scientific vocabulary. 2. I can identify simple patterns and/or relationships using simple comparative language.	1. I can begin to use results to identify conclusion and predictions.	1. I can use recorded data to make predictions, pose new questions and suggest improvements for further enquiries.	1. I can use test results to make predictions and suggest the next steps in an investigation.	1. I can analyse results accurately and identify the validity of conclusion and required improvement to methodology.
			Identifying differences, similarities or changes related to simple scientific ideas and processes.			
			2. I can identify, with help, similarities and differences in data to help form conclusions.	2. I can begin to analyse recorded data to identify independently the outcome of scientific ideas and processes.		
					Identifying scientific evidence that has been used to support or refute ideas or arguments.	
			Using straightforward scientific evidence to answer questions or to support their findings.		2. I can identify and explain scientific evidence within arguments using the correct scientific vocabulary.	2. I can identify evidence that supports or refutes their findings, selecting fact from opinion.
			3. I can, with help, use evidence to support their findings and answer simple questions.	3. I can explain, using scientific vocabulary, and use evidence to explain and answer investigations to support their findings.		
Vocabulary (V)	General question, find, results, know, because, pattern, sort, measure, identify, predict, test, sense, change, classify, observe		General conclusion, graph, fair, measure, identify, investigate, diagram, data, compare, patterns, similarity, predict, evidence, classify, improve		General comparative, variable, argue, comparative, scatter graph, scientific, accurate, source, control, research, enquire, precise, relationship, trust, justify	