Science Skills Progression Map

			KS1 (Years 1 and 2)	KS2 (Years 3 and 4)	KS2 (Years 5 and 6)
Observation over Time	Plan	Planning	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
	Do	Observing/ obtaining evidence	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 where appropriate
		Recording	gathering and recording data to help in answering questions	• gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
	Review	Concluding	using their observations and ideas to suggest answers to questions	• reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • identifying differences, similarities or changes related to simple scientific ideas and processes • Using straightforward scientific evidence to answer questions or to support their findings	• 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.
		Evaluating		using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	identifying scientific evidence that has been used to support or refute ideas or arguments

			KS1 (Years 1 and 2)	KS2 (Years 3 and 4)	KS2 (Years 5 and 6)
Identify/Classify	Plan	Planning	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	
	Do	Observing/ obtaining evidence	identifying and classifying	making systematic and careful observations and where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	
		Recording	gathering and recording data to help in answering questions	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
	Review	Concluding	using their observations and ideas to suggest answers to questions	• identifying differences, similarities or changes related to simple scientific ideas and processes • Using straightforward scientific evidence to answer questions or to support their findings	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.
		Evaluating		using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	identifying scientific evidence that has been used to support or refute ideas or arguments

			KS1 (Years 1 and 2)	KS2 (Years 3 and 4)	KS2 (Years 5 and 6)
Patterns seeking	Plan	Planning	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
	Do	Observing/ obtaining evidence	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 where appropriate
		Recording	gathering and recording data to help in answering questions	recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
	Review	Concluding	using their observations and ideas to suggest answers to questions	• reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • identifying differences, similarities or changes related to simple scientific ideas and processes	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.
		Evaluating		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. • identifying scientific evidence that has been used to support or refute ideas or arguments

			KS1 (Years 1 and 2)	KS2 (Years 3 and 4)	KS2 (Years 5 and 6)
Research	Plan	Planning	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	
	Do	Observing/ obtaining evidence		making systematic and careful observations and where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	
		Recording		•gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	
	Review	Concluding	using their observations and ideas to suggest answers to questions	Using straightforward scientific evidence to answer questions or to support their findings	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.
		Evaluating		Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	identifying scientific evidence that has been used to support or refute ideas or arguments

			KS1 (Years 1 and 2)	KS2 (Years 3 and 4)	KS2 (Years 5 and 6)
Fair Testing	Plan	Planning	asking simple questions and recognising that they can be answered in different ways	setting up simple practical enquiries, comparative and fair tests	planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
	Do	Observing/ obtaining evidence	performing simple tests	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 where appropriate
		Recording	gathering and recording data to help in answering questions	recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
	Review	Concluding	using their observations and ideas to suggest answers to 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.
		Evaluating		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. • identifying scientific evidence that has been used to support or refute ideas or arguments