Scientific Enquiry Progression

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Asking and answering questions	To explore and ask questions about the natural environment around them	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 using secondary sources such as ICT. Answer questions using straight forward scientific evidence.	Raise different types of scientific questions, and hypotheses.	Pose/select the most appropriate line of enquiry to investigate scientific questions.
Making predictions	To be able to ask questions to find out more.	Begin to say what might happen in an investigation	Begin to make predictions	Make predictions and begin to give a reason	Make predictions and give a reason using simple scientific vocabulary.	Make predictions and give a reason using scientific vocabulary.	Make predictions and give a reason using scientific vocabulary. Base predictions on findings from previous investigations
Making observations	Talk about features of the environment they are in and learn about the different environments. Make observations about animals discussing similarities and differences.	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 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 measurements		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.	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 increasing 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 and classifying	Understand the terms 'same' and 'different'.	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.
Engaging in practical enquiry (investigating)	Know some important processes and changes in the natural world including states of matter.	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 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	To use talk to organise, sequence and clarify thinking, ideas, feelings and events.	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 their findings using scientific language and present in note form, writing frames, diagrams, tables and charts.	Choose appropriate ways to record and present information, findings and conclusions for different audiences (e.g. displays, oral or written explanations).	Record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, bar and line graphs and models.	Choose the most effective approach to record and report results, linking to mathematical knowledge.
Drawing conclusions	To use talk to organise, sequence and clarify thinking, ideas, feelings and events.	Explain, with help, what they think they have found out.	Use simple scientific language to explain what they have found out.	Draw, with help, a simple conclusion based on evidence from an enquiry or observation.	Use recorded data to make predictions, pose new questions and suggest improvements for further enquiries.	Use a simple mode of communication to justify their conclusions on a hypothesis. Begin to recognise how scientific ideas change over time.	Identify validity of conclusion and required improvement to methodology. Discuss how scientific ideas develop over time.
Analysing data Evaluating and raising further	To be able to understand a question such	Use every day or simple scientific language to ask	Identify simple patterns and/or relationships using	Gather, record and use data in a variety of ways	Identify, with help, changes, patterns, similarities and differences in data to help form	Use relevant scientific language and	Identify and explain causal relationships in

questions and predictions	as who, what, where, when, why and how.	and/or answer a question on given data.	simple comparative language.	to answer a simple question.	conclusions. Use scientific evidence to support their findings.	illustrations to discuss, communicate and justify their scientific ideas.	data and identify evidence that supports or refutes their findings, selecting fact from opinion.
Topic See MTP of topics for the sequence of Knowledge	The Natural Word Listening Attention and Understanding	Human Senses Seasonal Changes Animal Parts Everyday Materials Plant Parts	Human Survival Habitats Animal Survival Uses of Materials Pant Survival	Plant Nutrition and Reproduction Rocks (Covered in Geography driver topic) Animal Nutrition and the Skeletal System Forces and Magnets Light and Shadows	Electrical Circuits and Conductors States of Matter Food and the Digestive System Sound Grouping and Classifying	Circulatory System Human Reproduction and Ageing Forces and Mechanisms Properties and Changes of Materials	Earth and Space Light theory Evolution and Inheritance. (Classification is covered in this topic) RSE Electrical circuits and components.