Science Overview

Substantive Knowledge

	Biology				Chemistry			Physics					
	Plants	**Animals including humans**	**Living things and their habitats**	**Evolution and inheritance**	**Rocks**	**Materials and their properties**	**States of Matter**	**Forces and magnets**	**Seasonal Change**	**Electricity**	**Light**	**Earth and Space**	**Sound**
EYFS													
Y1													
Y2													
Y3													
Y4													
Y5													
Y6													

Disciplinary Knowledge

	Methods to answer scientific questions.	Apparatus and techniques, including measurement.	Analysis, presentation and evaluation of scientific data to draw valid conclusions.	Development of scientific knowledge over time and its implications.
EYFS	• Talk about what they see, using a wider ranging, descriptive and relevant vocabulary. • Explore how things work through hands on experiences and talk about this process. • Describe what they see, hear and feel using relevant vocabulary	• Use senses to explore materials and use relevant vocabulary to describe these. • Explore how things work, and the world around them through hands on experiences, extending this by talking about the experience and process.	• Describe what they see, hear and feel using relevant vocabulary	
KS1	• asking simple questions and recognising that they can be answered in different ways • identifying and classifying	• observing closely, using simple equipment • performing simple tests • gathering and recording data	• using their observations and ideas to suggest answers to questions	
LKS2	• asking relevant questions and using different types of scientific enquiries to answer them • setting up simple practical enquiries, comparative and fair 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 • Gathering, recording, classifying and presenting data in a variety of ways	• recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further 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.

UKS2	• planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate •	• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • using test results to make predictions to set up further comparative and fair tests • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations	• identifying scientific evidence that has been used to support or refute ideas or arguments