Science Long Term Plan – working scientifically objectives for KS1and KS2

The objectives below are all related to children working scientifically. These should be covered where appropriate within the main science topics across Route A and Route B. Opportunities should be planned for all objectives to be covered at some stage.

	Working scientifically objectives			
	Planning and prediction	**Carrying out the investigation**	**Recording and classification**	**Reviewing and evaluating**
Year 1/2	Ask simple questions and recognise that they can be answered in different ways.	Observe closely, using simple equipment Perform simple tests Identify and classify	Use observations and ideas to suggest answers to questions Gather and record data to help answer questions	Use observations and ideas to suggest answers to questions Gather and record data to help answer questions
Year 3/4	Ask relevant questions and use different types of scientific enquires to answer them Set up simple practical enquiries, comparative and fair tests	Make systematic and careful observations and where appropriate take accurate measurements using standard units. Use a range of equipment including thermometers and data loggers.	Gather, record, classify and present data in a variety of ways to help them answer questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identify differences, similarities or changes related to simple scientific ideas and processes. Use straightforward scientific evidence to answer questions or to support their findings.
Year 5/6	Plan different types of scientific enquires to answer questions, including recognising and controlling variables where necessary.	Take measurements using a range of scientific equipment with increasing accuracy and precision, taking repeat readings when appropriate.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Use test results to make predictions to set up further comparative and fair tests. Report and present findings from enquiries including conclusions, casual relationships and explanations and degree of trust in results, in oral and written forms such as displays and other presentations. Identify scientific evidence that has been used to support or refute ideas or arguments.