

Skill	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Questioning	-Answer how and why questions about experiences (Understanding)  (The World)	-Ask simple scientific questions	-Ask simple scientific questions	-Ask relevant scientific questions linked to a topic/unit.	-Ask relevant scientific questions linked to a topic/unit.	-Plan different types of scientific enquiry. -Control variables in an enquiry accurately	-Plan different types of scientific enquiry. -Control variables in an enquiry accurately
Observing/ Measuring	-Choose resources needed for activities (self-confidence and self-awareness)	- Use simple equipment to make observations	- Use simple equipment to make observations	-Make careful and accurate observations and measurements, including the use of standard units.	-Make careful and accurate observations and measurements, including the use of standard units.	-Observe and measure accurately and precisely using a range of equipment. -Make independent decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them	-Observe and measure accurately and precisely using a range of equipment. -Make independent decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them
Testing		- Carry out simple tests which enable children to understand the effect of changing one variable	- Carry out simple tests which enable children to understand the effect of changing one variable	-Set up a simple enquiry to explore a scientific question -Set up a test to compare two things. -Set up a fair test and explain why it is fair. -Understand the importance of independent variables -Use equipment to make measurements.	-Set up a simple enquiry to explore a scientific question -Set up a test to compare two things. -Set up a fair test and explain why it is fair. -Understand the importance of independent variables -Use equipment to make measurements.	-Identify possible independent variables to design a fair test and understand what to observe and measure	-Identify possible independent variables to design a fair test and understand what to observe and measure
Identifying and Classifying/ Recording data		- Identify and classify things	- Identify and classify things	-Use diagrams, keys, bar charts and tables, using scientific language.	-Use diagrams, keys, bar charts and tables, using scientific language.	-Record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	-Record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
Predicting/ Suggesting	-Make observations and talk about why things occur and change	-Suggest what I have found out	-Suggest what I have found out	-Given the variables, make a prediction with a reason.	-Given the variables, make a prediction with a reason.	-Predict effect of changing independent variables on results - Use the outcome of test results to make predictions and set up a further comparative fair test.	-Predict effect of changing independent variables on results - Use the outcome of test results to make predictions and set up a further comparative fair test.

Answering questions		- Use simple data to answer questions	- Use simple data to answer questions	-Use observations and knowledge to answer scientific questions. -Gather, record, classify and present data in different ways to answer scientific questions.	-Use observations and knowledge to answer scientific questions. -Gather, record, classify and present data in different ways to answer scientific questions.	- Report findings from enquires in a range of ways.	- Report findings from enquires in a range of ways.
Reporting/ Making conclusions		-Talk about findings and how findings have been reached	-Talk about findings and how findings have been reached	-Draw conclusions and suggest improvements. -Identify differences, similarities and changes related to an enquiry. -Use findings to report in different ways, including oral and pictorial/written explanations.	-Draw conclusions and suggest improvements. -Identify differences, similarities and changes related to an enquiry. -Use findings to report in different ways, including oral and pictorial/written explanations.	-Draw a conclusion from an enquiry and its results. -Relate the outcomes from an enquiry to scientific knowledge in order to state whether evidence supports or refutes an argument/ theory. -Explain causal relationships in an enquiry.	-Draw a conclusion from an enquiry and its results. -Relate the outcomes from an enquiry to scientific knowledge in order to state whether evidence supports or refutes an argument/ theory. -Explain causal relationships in an enquiry.