The Greville Primary School – Science Working Scientifically Progression Map

Ask Questions

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Can ask simple questions.	• Ask simple questions.	• **Ask simple questions and recognise that they can be answered in different ways.**	• Ask questions and understand there are different enquiry types they could use to answer them.	• **Ask relevant questions and use different types of scientific enquiry to answer them.**	• Ask scientific questions and begin to understand which questions would be best suited to each enquiry type.	• Ask relevant scientific questions and choose which enquiry type would best be suited to answer them.

Make Predictions

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Say what they think will happen.	• Make simple predictions.	• Make simple predictions based on a question.	• Make relevant predictions.	• Make predictions based on simple scientific knowledge.	• Make predictions based on scientific knowledge.	• Make predictions based on scientific knowledge.

Set Up Tests

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Can perform simple tests with adult support	• Verbally state what they are going to investigate.	• Identify what they will change and keep the same.	• Identify what they will change, observe and keep the same, • With support, set up simple practical enquiries.	• Identify what they will change, observe or measure and keep the same. • **Set up simple practical enquiries, comparative and fair tests.**	• With support, plan different types of scientific enquiry. Where appropriate, identify the dependent, independent and controlled variables.	• **Plan different types of scientific enquiry to answer questions, including recognising and controlling variables where necessary.**

Make observations and measurements

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Can observe changes over time. • Can observe patterns • Can identify similarities and difference • Can describe what they can see	• Observe closely. • Carry out simple tests using non-standard measurements when appropriate.	• **Observe closely, using simple equipment.** • Measure using standard units when appropriate**.**	• Begin to use scientific equipment to make observations. • Carry out tests and simple experiments and take measurements using standard units.	• **Make systematic and careful observations.** • **Take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.**	• Use a range of scientific equipment to make systematic and careful observations. • Take accurate measurements using a range of scientific equipment. Start to take repeat reading when appropriate.	• Use a range of scientific equipment to make systematic and careful observations with increased complexity. • **Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat reading when appropriate.**

Gather, record and classify data

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Can identify and classify animals and materials. • Can record observations in ways that are important and meaningful to them.	• Gather and record simple data. • Sort objects and living things into groups based on simple properties.	• **Gather and record data to help in answering questions.** • **Identifying and classifying.**	• Gather and record data in different ways to help answer questions. • Recording findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.	• **Gather, record and classify data in a variety of ways to help in answering questions.** • **Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.**	• Gather, record and classify data with increasing complexity to help in answering questions. • Record data using scientific diagrams and labels, classification keys, tables, bar and line graphs.	• Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

Interpreting and Communicating Data

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Tell an adult what they have noticed.	• Explain what they found out to an adult or partner. • Answer simple questions	• **Talk about what they have found out and how they found it out. (non-statutory)** • **Use their observations and ideas to suggest answers to questions.**	• Report on findings from enquiries, including oral and written explanations. • Make simple conclusions. • Use results, findings and observations to answer questions.	• **Report on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions.** • **Use straight-forward scientific evidence to answer questions or to support their findings.** • **Use results to draw conclusions.**	• Report and present findings from enquiries, including conclusions and causal relationships. • Make conclusions based on scientific evidence and from their own testing and findings. • Use scientific evidence to answer questions. • **Identify differences, similarities or changes related to simple ideas and processes.**	• Report and present findings from enquiries, including conclusions, causal relationships and explanations of degrees of trust in results, in oral and written forms. • Use scientific evidence to answer questions. • Make conclusions based on scientific evidence and from their own testing and findings. • **Identify scientific evidence that has been used to support to refute ideas or arguments.**

Evaluate

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			• Suggest questions for further investigations.	• Begin to **make predictions for new values, suggest improvements and raise further questions.**	• **Make predictions for new values, suggest improvements and raise further questions.**	• Use test results to make predictions to set up further comparative and fair tests, • Suggest investigations improvements including accuracy of results. • Provide some simple examples of how to extend an investigation,