



Northfield St Nicholas Science Progression of Skills Document (Working Scientifically)

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Plan: Questioning Enquiring	Children are confident to speak in a familiar group, about their ideas.	Use everyday language and 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.
Do: Identifying & Classifying Investigating Observing Measuring	Children are confident to try new activities. Choose the resources they need for their chosen activities. Know about similarities and differences in relation to places, objects, materials and living things. Make observations of animals and plants. Select and use technology for particular purposes	Sort and group objects, materials and living things, with help, according to simple observational features. Follow instructions to complete a simple test individually or in a group. Use simple equipment to observe closely objects, materials and living things and describe what they see. Use simple, nonstandard measurements in a practical task.	Decide, with help, how to group materials, living things and objects, noticing changes over time and beginning to see patterns. Do things in the correct order when performing a simple test and begin to recognise when something is unfair. Observe something closely and describe changes over time. Use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out simple tests.	Talk about criteria for grouping, sorting and categorising, beginning to see patterns and relationships. Discuss enquiry methods and describe a fair test. Set up simple practical enquiries, comparative and fair tests (with guidance) Make decisions about what to observe during an investigation. Take accurate measurements using standard units.	Identify similarities/differences/changes when talking about scientific processes. Use and begin to create simple keys. Make decisions about different enquiries, including recognising when a fair test is necessary and begin to identify variables. Set up simple practical enquiries, comparative and fair tests. Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Make systematic and careful observations.	Use and develop keys to identify, classify and describe living things and materials. Plan a range of science enquiries, including comparative and fair tests. Make systematic and careful observations Take measurements using a range of scientific equipment with increasing accuracy and precision.	Identify and explain patterns seen in the natural environment. 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. 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. Choose equipment with increasing accuracy and precision.
Record: Recording Reporting	They write simple sentences which can be read by themselves and others. Some words are spelt correctly and others are phonetically plausible. Records, using marks that they can interpret and explain. Children express themselves effectively, showing	Talk about their findings. Record their findings using scientific language and present in note form, writing frames, diagrams, tables and charts	Gather and record data to help in answering questions including from secondary sources of information. Choose appropriate ways to record and present information, findings and conclusions for different audiences (e.g. displays, oral or written explanations).	Gather, record, classify and present 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*	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables,	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables.	Decide how long to take measurements for, checking results with additional readings. Choose the most effective approach to record and report results, linking to mathematical knowledge.

	<p>awareness of listeners' needs.</p> <p>Extends vocabulary, especially by grouping and naming, exploring the meaning and sounds of new words.</p> <p>They develop their own explanations by connecting ideas or events.</p>						
<p>Review: Analysing Drawing Conclusions.</p>	<p>Children know about similarities and differences in relation to places, objects, materials and living things.</p> <p>Explain why some things occur and talk about changes.</p> <p>They develop their own explanations by connecting ideas or events.</p>	<p>Explain, with help, what they think they have found out.</p> <p>Use every day or simple scientific language to ask and/or answer a question on given data.</p>	<p>Identify simple patterns and/or relationships using simple comparative language.</p> <p>Use simple scientific language to explain what they have found out.</p>	<p>Gather, record and use data in a variety of ways to answer a simple question.</p> <p>Draw, with help, a simple conclusion based on evidence from an enquiry or observation.</p>	<p>Identify, with help, changes, patterns, similarities and differences in data to help form conclusions. Use scientific evidence to support their findings.</p> <p>Use recorded data to make predictions, pose new questions and suggest improvements for further enquiries.</p>	<p>Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas.</p> <p>Use a simple mode of communication to justify their conclusions on a hypothesis.</p> <p>Begin to recognise how scientific ideas change over time.</p>	<p>Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion</p> <p>Identify validity of conclusion and required improvement to methodology.</p> <p>Discuss how scientific ideas develop over time.</p>