



Moorland Primary School – Progression of skills in Working Scientifically

SKILLS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Working scientifically</p>	<p>Ask simple scientific questions.</p> <p>With support, use simple equipment to measure and make observations.</p> <p>With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.</p> <p>Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.</p> <p>Observe the local environment throughout the year and ask and answer questions about living things and seasonal change.</p> <p>With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams)</p> <p>Talk about what they have done and say, with help what they think they have found out.</p>	<p>Ask and answer scientific questions about the world around them.</p> <p>Use simple equipment to measure and make observations.</p> <p>Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions.</p> <p>Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning.</p> <p>Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language.</p> <p>Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy.</p>	<p>Ask questions about the world around them and explain that they can be answered in different ways.</p> <p>Take measurements in standard units, using a range of simple equipment.</p> <p>Set up and carry out some simple, comparative and fair tests, making predictions for what might happen.</p> <p>Make increasingly careful observations, identifying similarities, differences and changes and making simple connections.</p> <p>Gather and record findings in a variety of ways (diagrams, tables, charts and graphs) with increasing accuracy.</p> <p>Make increasingly careful observations, identifying similarities, differences and changes and making simple connections.</p> <p>Use suitable vocabulary to talk or write about what they have done, what the purpose was and, with help, draw a simple conclusion based on evidence collected, beginning to identify next steps or improvements.</p>	<p>Ask relevant scientific questions, independently, about the world around them and begin to identify how they can answer them.</p> <p>Take accurate measurements in standard units, using a range of equipment.</p> <p>Begin to independently plan, set up and carry out a range of comparative and fair tests, making predictions and following a method accurately.</p> <p>Gather, record, classify and present observations and measurements in a variety of ways (pictorial representations, timelines, diagrams, keys, tables, charts and graphs).</p> <p>Gather, record, classify and present observations and measurements in a variety of ways (pictorial representations, timelines, diagrams, keys, tables, charts and graphs)</p> <p>Begin to choose which observations to make and for how long and make systematic, careful observations and comparisons, identifying changes and connections.</p> <p>Use scientific vocabulary to report and answer questions about their findings based on evidence collected, draw simple conclusions and identify next steps, improvements and further questions.</p>	<p>Ask a wide range of relevant scientific questions that broaden their understanding of the world around them and identify how they can answer them.</p> <p>Take increasingly accurate measurements in standard units, using a range of chosen equipment.</p> <p>Plan and carry out a range of enquiries, including writing methods, identifying variables and making predictions based on prior knowledge and understanding.</p> <p>Within a group, decide which observations to make, when and for how long, and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.</p> <p>Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models).</p> <p>Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.</p>	<p>Ask and answer deeper and broader scientific questions about the local and wider world that build on and extend their own and others' experiences and knowledge.</p> <p>Take accurate, precise and repeated measurements in standard units, using a range of chosen equipment.</p> <p>Plan and carry out a range of enquiries, including writing methods, identifying and controlling variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding.</p> <p>Independently decide which observations to make, when and for how long and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.</p> <p>Choose an appropriate approach to recording accurate results, including scientific diagrams, labels, timelines, classification keys, tables, models and graphs (bar, line and scatter), linking to mathematical knowledge.</p> <p>Report on and validate their findings, answer questions and justify their methods, opinions and conclusions, and use their results to suggest improvements to their methodology, separate facts from opinions, pose further questions and make predictions for what they might observe.</p>



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Early Years Skills Overview



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<p>Development Matters (3-4 year olds)</p>	<p>Development Matters (Reception children)</p>	<p>ELG</p>
<p>Understand ‘why’ questions, like: “Why do you think the caterpillar got so fat?”</p> <p>Use all their senses in hands-on exploration of natural materials.</p> <p>Explore collections of materials with similar and/or different properties.</p> <p>Talk about what they see, using a wide vocabulary.</p> <p>Begin to make sense of their own life-story and family’s history.</p> <p>Explore how things work.</p> <p>Understand the key features of the life cycle of a plant and an animal.</p> <p>Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>Explore and talk about different forces they can feel.</p> <p>Talk about the differences between materials and changes they notice.</p>	<p>Learn new vocabulary.</p> <p>Ask questions to find out more and to check what has been said to them.</p> <p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Recognise some environments that are different to the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p>Make comments about what they have heard and ask questions to clarify their understanding.</p> <p>Explore the natural world around them, making observations and drawing pictures of animals and plants.</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>