



Year Groups	<p style="text-align: center;">Working Scientifically</p> <p><i>In addition to the knowledge based content of the National Curriculum, all children need to develop the skills required to work scientifically. The National Curriculum outlines the following criteria for working scientifically at each stage of primary education.</i></p>
Years 1 & 2	<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> • Asking simple questions and recognising that they can be answered in different ways; • Observing closely, using simple equipment; • Performing simple tests; • Identifying and classifying; • Using their observations and ideas to suggest answers to questions; • Gathering and recording data to help in answering questions.
Years 3 & 4	<p>During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> • Asking relevant questions and using different types of scientific enquiries to answer them; • Setting up simple practical enquiries, comparative and fair tests; • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers; • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions; • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables; • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions; • Identifying differences, similarities or changes related to simple scientific ideas and processes; • Using straightforward scientific evidence to answer questions or to support their findings.
Year 5 & 6	<p>During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> • Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary; • Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate; • Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs; • Using test results to make predictions to set up further comparative and fair tests; • Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations; • Identifying scientific evidence that has been used to support or refute ideas or arguments.