Sproatley Endowed CE Academy

Science – 'Working Scientifically' progression of skills

Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
I can explore the world around me and raise my own simple questions about my environment and nature.	I can raise my own relevant questions about the world around me.	I can use my science experiences to explore ideas and raise different kinds of questions .
I have experienced different types of science enquiries, including a range of practical activities.	I have used a range of scientific experiences, including different types of science enquiries, to answer questions and explore my ideas.	I can talk about how a range of scientific ideas have developed over time.
I can begin to recognise different ways in which I might answer scientific questions.	I can make my own decisions about the most appropriate type of scientific enquiry that might be best to answer a question and justify my reasoning.	I can select and plan the most appropriate type of scientific enquiry that can be used to answer a scientific question.
I can choose an appropriate method and begin to carry out a simple test with some guidance from an adult.	I can set up simple practical enquiries, using comparative and fair approaches to test my ideas. I can explain why a test needs to be fair in order to provide a clear explanation.	I recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.
I can use simple features to compare objects, materials and living things and, with help, decide how to sort and group them (identifying and classifying).	I can talk about criteria for grouping, sorting and classifying, using a key to support the test.	I can use and develop keys and other information recording strategies to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment.
I can ask questions and use simple secondary sources to find answers.	I can recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.	I can recognise which secondary sources will be most useful to research my ideas and begin to separate opinion from fact.
I can observe closely, using simple equipment with help, and observe changes over time.	I can make systematic and careful observations, making decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.	I can make my own decisions about what observations to make, what measurements to use and how long to make them for.
I can start to notice patterns and relationships between variables.	I can see some patterns between variables and decide what data to collect to identify them.	I can look for different causal relationships in my data and identify evidence that both supports and challenges my ideas.
I can use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data.	I can take accurate measurements using standard units using a range of (new) equipment, such as data loggers / thermometers appropriately.	I can choose and justify the use of the most appropriate equipment to make measurements with increasing precision.
I can record simple data, such as in a table or tally chart, with guidance.	I can collect and record data from my own observations and measurements in a variety of ways: making notes, drawing bar charts and tables, use standard units of measure, drawings, labelled diagrams, keys and help to make decisions about how to analyse this data.	I can decide how to record data and results of increasing complexity from a choice of familiar approaches, such as: Scientific diagrams and labels, classification keys, tables, bar and line graphs.
I can talk about what I have found out and use my observations to suggest answers to questions.	I can look for changes, patterns, similarities and differences in my data in order to draw simple conclusions and answer questions.	I can identify scientific evidence that has been used to support or challenge ideas or arguments.
With help, I can record and communicate my findings in a range of ways and begin to use simple scientific language to support my findings.	I can use relevant and simple scientific language to discuss my ideas and communicate my findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.	I can use relevant scientific language and illustrations to discuss, communicate and justify my scientific ideas, using oral and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of results.
	With support, I can identify new questions arising from the data, make predictions for new values within or beyond the data I have collected and find ways of improving what I have already done.	I can use my results to make predictions and identify when further observations, comparisons and fair tests might be needed to investigate further.