Progression of Skills: Science - Working Scientifically

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Asking questions and recognising that they can be answered in different ways	• I can ask questions about the world around me. • I am beginning to recognise that questions can be answered in different ways.	• I have my own ideas. • I am finding ways to solve problems and I am finding new ways to do things. • I am making predictions. • I can plan and make decisions about how to solve a problem and reach a goal.	• I can ask relevant questions when prompted. • I can set up simple practical enquiries, comparative and fair tests.	• I can ask relevant questions. • I can plan different types of scientific enquiries to answer questions. • I can set up simple and practical enquiries, comparative and fair tests.	• I can, with prompting, plan different types of scientific enquiries to answer questions. • I can, with prompting, recognise and control variables where necessary.	• I can plan different types of scientific enquiries to answer questions. • I can recognise and control variables where necessary.
Making observations and taking measurements	• I am beginning to observe closely, using some simple equipment. • I am starting to perform simple tests with support.	• I can observe closely, using simple equipment. • I can perform simple tests. • I can use everyday language as I explore and talk about size, weight and capacity. • I can explore characteristics of everyday objects and shapes. • I can safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	• I can make systematic observations, using simple equipment. • I can use standard units when taking measurements.	• I can make systematic and careful observations using a range of equipment, including thermometers and data loggers. • I can take accurate measurements using standard units, where appropriate.	• I can select, with prompting, and use appropriate equipment to take readings. • I can take precise measurements using standard units.	• I can take measurements using a range of scientific equipment. • I can take measurements with increasing accuracy and precision. • I can take repeat readings when appropriate.
Recording and presenting evidence	• I can start to gather and record data to help answer questions.	• I am developing understanding of grouping,	• I can record findings in various ways. • I can, with prompting, suggest	• I can record findings using simple scientific language,	• I can record data using labelled diagrams, keys, tables and charts.	• I can record data and results of increasing complexity using

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		sequencing, cause and effect. • I can gather and record data using standard units of measurement to help answer questions.	how findings may be tabulated. • I can, with prompting, use various ways of recording, grouping and displaying evidence.	drawings and labelled diagrams. • I can record findings using keys, bar charts, and tables. • I can gather, record, classify and present data in a variety of ways to help to answer questions.	• I can use line graphs to record data and explain the events shown by each section of the line graph.	scientific diagrams and labels. • I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar charts. • I can record data and results of increasing complexity using line graphs.
Communicating findings and concluding	• I am beginning to identify and classify. • I can use my experiences of the world around me, observations and my own ideas to suggest answers to questions.	• I can make links and notice patterns. • I can use my observations and ideas to suggest appropriate answers to questions. E.g. speaking - using talk to organise, sequence and clarify thinking and ideas. • I can make observations about plants and animals and explain why some things occur and talk about changes.	• I can, with prompting, suggest conclusions from enquiries. • I can suggest how findings could be reported.	• I can report on findings from enquiries, including oral and written explanations, of results and conclusions. • I can report on findings from enquiries using displays or presentations. • I can use straightforward scientific evidence to answer questions or to support my findings.	• I can report and present findings from enquiries, including conclusions and, with prompting, suggest causal relationships. • I can, with support, present findings from enquiries orally and in writing.	• I can report and present findings from enquiries, including conclusions and causal relationships. • I can report and presents findings from enquiries in oral and written forms such as displays and other presentation. • I can report and present findings from enquiries, including explanations of, and degree of, trust in results.
Evaluating and raising further	N/A	• I can review how well the approach worked.	• I can suggest possible improvements or	• I can identify differences, similarities or changes related to	• I can make predictions based on previous scientific knowledge.	• I can identify scientific evidence that has been used

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questions and predictions.		• I can listen to and responds to ideas expressed by others. • I can discuss similarities and differences.	further questions to investigate.	simple scientific ideas and processes. • I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	• I can use results to draw conclusions and make suggestions for further questions to be investigated. • I can suggest further comparative or fair tests.	to support or refute ideas or arguments. • I can use test results to make predictions to set up further comparative and fair tests.
Key Vocabulary	Begin to use: question, answer, observe, observing, equipment, identify, classify, sort, group, record - diagram, chart, map, data, compare, contrast, describe, biology, chemistry, physics.	Use with accuracy: question, answer observe, observing, equipment, identify, classify, sort, group, record - diagram, chart, map, data, compare, contrast, describe, biology, chemistry, physics.	Begin to use: research - relevant questions, scientific enquiry, comparative and fair test, systematic, careful observation, accurate measurements, thermometer, data logger, data, gather, record, classify, present, drawings, labelled diagrams, keys, bar charts, tables, oral and written explanations, conclusion, predictions, differences, similarities, changes, evidence, improve, secondary sources, guides, keys construct interpret.	Use with accuracy: research - relevant questions scientific enquiry, comparative and fair test, systematic, careful observation, accurate measurements, thermometer, data logger, data, gather, record, classify, present, drawings, labelled diagrams, keys, bar charts, tables, oral and written explanations, conclusion, predictions, differences, similarities, changes, evidence, improve, secondary sources, guides, keys, construct, interpret.	Begin to use: plan, variables, measurements, accuracy, precision, repeat readings, report, data, scientific, diagrams, labels, classification keys, tables, scatter graphs, bar graph, line graphs, predictions, further comparative and fair test, report and present, conclusions, causal relationship, explanations, degree of trust, oral and written, display and presentation, evidence, support or refute ideas or arguments, identify, classify and describe patterns, systematic quantitative measurements.	Use with accuracy: p plan, variables, measurements, accuracy, precision, repeat readings, report, data, scientific, diagrams, labels, classification keys, tables, scatter graphs, bar graph, line graphs, predictions, further comparative and fair test, report and present, conclusions, causal relationship, explanations, degree of trust, oral and written, display and presentation, evidence, support or refute ideas or arguments, identify, classify and describe patterns, systematic quantitative measurements.