



BURRADON COMMUNITY PRIMARY SCHOOL
SCIENCE PROGRESSION OF WORKING SCIENTIFICALLY SKILLS
2026-2027



When teaching science, we can teach lesson through the lenses of the enquiry types. This is a way of answering the enquiry question.				
Comparing and fair testing 	Pattern seeking 	Researching using secondary sources 	Observing over time 	Identifying, classifying and grouping 

When teaching science, we must teach children how the following skills:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Asking questions	To begin to use a range of question stems, such as what; what if; why; when; who; and how; to ask questions about objects, living things and processes they are exploring To begin to construct a question based on a scenario or story	To use a range of question stems, such as what; what if; why; when; who; and how; to ask questions about objects, living things and processes they are exploring To construct a question based on a scenario or story	To begin to ask scientific enquiry questions with support To begin to follow a scientific enquiry by asking questions stimulated by what they have found out.	To ask scientific enquiry questions with support To follow a scientific enquiry by asking questions stimulated by what they have found out.	To begin to independently ask scientific enquiry questions.	To independently ask scientific enquiry questions.
Gathering data	To begin to talk about their observations of objects, materials and living things. To begin to talk about their observations when comparing objects, materials and living things. To begin to talk about their observations when describing changes. To begin to adjust the position of the magnifying glass in order to see the enlarged image clearly, when using a digital microscope. To begin to relate features on the enlarged view to the object, when using a digital microscope. To begin to make direct comparisons of length and height. To begin to use bricks, lolly sticks etc. or paper strips to take non-standard measurements of length. To begin to use simple measuring equipment, such as teaspoons, pipettes, rulers, metre sticks etc.	To talk about their observations of objects, materials and living things. To talk about their observations when comparing objects, materials and living things. To talk about their observations when describing changes. To adjust the position of the magnifying glass in order to see the enlarged image clearly, when using a digital microscope. To relate features on the enlarged view to the object, when using a digital microscope. To make direct comparisons of length and height. To use bricks, lolly sticks etc. or paper strips to take	To begin to make systematic and careful observations. To begin to measure time in standard units using stopwatches or timers. To begin to measure length in standard units using rulers, meter sticks, tape measures or trundle wheels. To begin to measure temperature in standard units using thermometers. To begin to measure capacity in standard units using syringes, beakers or measuring cylinders. To begin to use sensors to take measurements (e.g. light, sound, temperature).	To make systematic and careful observations. To measure time in standard units using stopwatches or timers. To measure length in standard units using rulers, meter sticks, tape measures or trundle wheels. To measure temperature in standard units using thermometers. To measure capacity in standard units using syringes, beakers or measuring cylinders. To use sensors to take measurements (e.g. light, sound, temperature).	To begin to make relevant systematic and detailed observations. To begin to use a range of equipment to take measurements (e.g. distance, time, temperature, capacity, force) using standard units. To begin to select measuring equipment to give appropriately precise results. To begin to identify when a sensor can be used to gather evidence • take repeat readings as appropriate.	To make relevant systematic and detailed observations. To use a range of equipment to take measurements (e.g. distance, time, temperature, capacity, force) using standard units. To select measuring equipment to give appropriately precise results. To identify when a sensor can be used to gather evidence • take repeat readings as appropriate.



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		non-standard measurements of length. To use simple measuring equipment, such as teaspoons, pipettes, rulers, metre sticks etc.				
Recording data	To begin to use a camera to take photographs or videos to record their observations. To begin to record their observations using drawings. To begin to record their observations using labelled drawings. To begin to record their observations or comparisons in writing. To begin to physically group objects, materials and living things or their images by a criterion. To begin to physically group objects or materials according to the data they gather (classifying). To begin to use data they gather to physically rank objects or materials (comparative testing). To begin to add their data to a prepared table or simple Venn diagram. To begin to add pictures to a pictogram. To begin to add tally marks to a tally chart and count up the total number. To begin to make a physical block graph or bar chart by using bricks, lolly sticks etc. or paper strips with which they measured lengths or heights.	To use a camera to take photographs or videos to record their observations. To record their observations using drawings. To record their observations using labelled drawings. To record their observations or comparisons in writing. To physically group objects, materials and living things or their images by a criterion. To physically group objects or materials according to the data they gather (classifying). To use data they gather to physically rank objects or materials (comparative testing). To add their data to a prepared table or simple Venn diagram. To add pictures to a pictogram. To add tally marks to a tally chart and count up the total number. To make a physical block graph or bar chart by using bricks, lolly sticks etc. or	To begin to record data in a simple table they construct themselves. To begin to record data onto a complex table provided for them. To begin to record their measurements directly onto a bar chart with the axes and scales provided. To begin to record observations and information using a drawing, a labelled diagram.	To record data in a simple table they construct themselves. To record data onto a complex table provided for them. To record their measurements directly onto a bar chart with the axes and scales provided. To record observations and information using a drawing, a labelled diagram and, in Year 4 only, a key.	To begin to choose an appropriate method to record the data they will gather using experience of recording methods learnt in Key Stage 1 and Lower Key Stage 2 (e.g. photographs, videos, drawings, labelled diagrams, writing and tables). To begin to construct, and record data in, a complex table. To begin to construct, and record data in, a bar chart. To begin to construct, and record data in, a line graph. To begin to add data on to a scatter graph with the axes and scales provided. To begin to construct, and record data in, a key.	To choose an appropriate method to record the data they will gather using experience of recording methods learnt in Key Stage 1 and Lower Key Stage 2 (e.g. photographs, videos, drawings, labelled diagrams, writing and tables). To construct, and record data in, a complex table. To construct, and record data in, a bar chart. To construct, and record data in, a line graph. To add data on to a scatter graph with the axes and scales provided. To construct, and record data in, a key.



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		paper strips with which they measured lengths or heights.				
Drawing conclusions	To begin to use their observations and simple secondary sources (e.g. identification sheets) to name living things they find in the local area. To begin to recognise 'biggest and smallest', 'best and worst' etc. from their data. To begin to give an answer to their scientific enquiry question that is consistent with the data they have gathered either through observations, measurements or from research. To begin to recognise that they can answer scientific enquiry questions in different ways.	To use their observations and simple secondary sources (e.g. identification sheets) to name living things they find in the local area. To recognise 'biggest and smallest', 'best and worst' etc. from their data. To give an answer to their scientific enquiry question that is consistent with the data they have gathered either through observations, measurements or from research. To recognise that they can answer scientific enquiry questions in different ways.	To begin to communicate what they learn from practical activities. To begin to answer the scientific enquiry question using the data gathered.	To communicate what they learn from practical activities. To answer the scientific enquiry question using the data gathered.	To begin to answer the scientific enquiry question using the data gathered. To begin to discuss whether other evidence (e.g. from other groups or their scientific understanding) supports or refutes their answer. To begin to talk about how their scientific ideas change due to new data that they have gathered. To begin to talk about how scientific discoveries have changed scientific understanding in the past and continue to do so today.	To answer the scientific enquiry question using the data gathered. To discuss whether other evidence (e.g. from other groups or their scientific understanding) supports or refutes their answer. To talk about how their scientific ideas change due to new data that they have gathered. To talk about how scientific discoveries have changed scientific understanding in the past and continue to do so today.
Presenting data	This is only required at KS2 however, children can present data as a class or with support.		To begin to present, with support, the recorded data in a different way in order to help answer the question.	To present, with support, the recorded data in a different way in order to help answer the question.	To begin to present the recorded data in a different way in order to help answer the question.	To present the recorded data in a different way in order to help answer the question.
Evaluating an enquiry			To begin to identify ways in which they adapted their method as they progressed or how they could change it to improve the data gathered. To begin to compare two methods for a test.	To identify ways in which they adapted their method as they progressed or how they could change it to improve the data gathered. To compare two methods for a test.	To begin to evaluate the precision of their measurements. To begin to evaluate whether the results are trustworthy enough to answer the scientific enquiry question.	To evaluate the precision of their measurements. To evaluate whether the results are trustworthy enough to answer the scientific enquiry question.
Planning an enquiry			To begin to identify the data required to answer the scientific enquiry question. To begin to select appropriate practical equipment to gather the data.	To identify the data required to answer the scientific enquiry question. To select appropriate practical equipment to gather the data. To identify how to gather the data required to answer	To begin to describe the method they would use to gather data to answer a scientific enquiry question.	To describe the method they would use to gather data to answer a scientific enquiry question.



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			To begin to identify how to gather the data required to answer the scientific enquiry question. To begin to suggest the type of scientific enquiry they are using.	the scientific enquiry question. To suggest the type of scientific enquiry they are using.		
Making predictions	This is only required at KS2 however, children can make predictions with support and stem sentences.		To begin to use the data they have already gathered to suggest values for the next reading.	To use the data they have already gathered to suggest values for the next reading.	To begin to use the data they have already gathered to suggest further values. To begin to use the scientific understanding gained from scientific enquiry to make predictions they can investigate using further comparative and fair tests.	To use the data they have already gathered to suggest further values. To use the scientific understanding gained from scientific enquiry to make predictions they can investigate using further comparative and fair tests.