











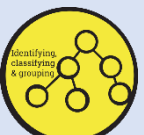












Working scientifically from NC	Year group	Unit of work	How it appears in our curriculum
Perform simple tests	Y1	Animals inc. humans	Perform simple tests and make a prediction by investigating senses of smell and taste.
Gathering and recording data to help in answering questions Asking simple questions and recognising that they can be answered in different ways	Y1	Animals inc. humans	Use secondary sources to answer the question 'What do minibeasts eat?' 
Observing closely using simple equipment	Y1	Seasons	Observe decaying leaves closely using magnifying glasses
Perform simple tests Observe closely using simple equipment Gathering and recording data to help in answering questions Using their observations and ideas to suggest answers to questions	Y1	Everyday materials	Perform simple tests by investigating how waterproof different materials are. Observe closely using egg timers to maintain fair testing and gather and record data in a table to help answer the question 'Which fabric is the most waterproof?'  Use their observations and ideas to suggest answers to the question 'What material would be best to use for a raincoat?'
Identifying and classifying	Y1	Plants	Identify different plants and trees using secondary sources such as identification sheets.  Classify plants by leaf shape and their own chosen criteria and use this to answer their own questions.
Asking simple questions and recognising that they can be answered in different ways	Y2	Plants Animals inc. humans	Ask simple questions about similarities and differences between seeds and bulbs Recognise that questions can be answered in different ways  Ask simple questions about similarities and differences between different offspring Recognise that questions can be answered in different ways 
Asking simple questions and recognising that they can be answered in different ways Perform simple tests Gathering and recording data to help in answering questions Using their observations and ideas to suggest answers to questions	Y2	Materials	Asking simple questions and recognising they can be answered in different ways by performing simple tests - investigating how stretchy different fabrics are. Gather and record data to help in answering the question 'Which fabric is the stretchiest?' 

Working scientifically from NC	Year group	Unit of work	How it appears in our curriculum
<p>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</p> <p>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</p> <p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>Setting up simple practical enquiries, comparative and fair tests</p> <p>Asking relevant questions and using different types of scientific enquiry to answer them</p> <p>Using straightforward scientific evidence to answer questions or support their findings</p> <p>Report on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions</p>	Y3	Light	<p>Choose their own resources to help them gather data, record using a table and present using a line graph and labelled diagram to answer the question ‘How do shadows change throughout the day?’ including changes in size. Present results and conclusions orally to the class.</p> 
<p>Asking relevant questions and using different types of scientific enquiry to answer them</p>	Y3	Animals inc. humans	<p>Use secondary sources to answer the question ‘What proportion of different food groups is healthy for children?’</p> 
<p>Identify differences, similarities or changes related to simple scientific ideas and processes</p>	Y3	Forces and magnets	<p>Identify differences, similarities or changes to how magnets work through other objects. Use this to answer their own question</p> 
<p>Asking relevant questions and using different types of scientific enquiry to answer them</p> <p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>Setting up simple practical enquiries, comparative and fair tests</p> <p>Using straightforward scientific evidence to answer questions or support their findings</p>	Y3	Forces and magnets	<p>Compare how things move on different surfaces by using scientific evidence through investigating the question ‘How does friction affect the distance a toy car can travel?’ Setting up their own comparative test; making systematic and careful observations using standard units; reporting findings through written</p> 

<p>Report on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions</p> <p>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</p>			<p>explanations and drawings; using results to draw conclusions; suggest improvements, and make predictions for future investigations</p>
<p>Identify differences, similarities or changes related to simple scientific ideas and processes</p>	Y3	Rocks	<p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties (Identifying differences, similarities or changes related to simple scientific ideas and processes). Use this to answer their own questions.</p> 
<p>Asking relevant questions and using different types of scientific enquiry to answer them</p> <p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>Setting up simple practical enquiries, comparative and fair tests</p> <p>Using straightforward scientific evidence to answer questions or support their findings</p> <p>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p>	Y3	Plants	<p>Investigate the effect of added or excluded nutrients on the growth of plants by setting up their own simple practical enquiries; taking accurate measurements of time and height using standard units; Using scientific evidence to answer questions and using results to draw conclusions, make predictions for new values, suggest improvements and ask further questions.</p> 
<p>Identify differences, similarities or changes related to simple scientific ideas and processes</p>	Y4	Living things	<p>Recognise that living things can be grouped in a variety of ways (Identify differences, similarities or changes related to simple scientific ideas and processes) Use this to answer their own question</p> 

<p>Asking relevant questions and using different types of scientific enquiry to answer them</p> <p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>Setting up simple practical enquiries, comparative and fair tests</p> <p>Using straightforward scientific evidence to answer questions or support their findings</p> <p>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>Report on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions</p> <p>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</p>	Y4	Materials – States of matter	<p>Set up their own practical enquiry to investigate the answer to the question ‘At what temperature does chocolate melt?’ by making systematic and careful observations and taking accurate measurements of temperature; using scientific evidence to support their findings; using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions; report on findings from enquiries with written explanations of results and conclusions and reporting findings using a bar chart.</p> 
<p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p>	Y4	Sound	<p>Find patterns between the volume of a sound and the strength of the vibrations that produced it by taking accurate measurements of standard units of sound using data loggers</p> 
<p>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</p>	Y4	Living things	<p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Use their own classification keys to answer questions.</p> 

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<p>Planning different types of scientific enquiries to answer questions</p> <p>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</p> <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p>	Y5	Living things and their habitats	<p>Compare the gestation period of different animals, including humans, using secondary sources, noting any relationship between the size of the animal and/or the number of young and its gestation period, presented using line graphs</p>  
Identifying scientific evidence that has been used to support or refute ideas or arguments	Y5	Earth and space	Explain how discoveries in Ancient Greece changed scientific understanding
<p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>Reporting and presenting findings from enquiries, including conclusions, casual relationships, and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</p>	Y5	Forces	<p>Plan a scientific enquiry to answer the question 'Does the shape of an object affect the speed at which it falls through water?' by making predictions; controlling variables; taking measurements; repeating readings as necessary; recording data in tables and scatter graphs and report and present findings including results, conclusions and degree of trust in the data in both written and oral forms</p> 
Recording data and results of increasing complexity using scientific diagrams and labels , classification keys, tables, scatter graphs, bar and line graphs	Y5	Forces	Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect and show this in a labelled scientific diagram
Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Y5	Materials	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets and show this in a Venn diagram

<p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p>	Y5	Materials	<p>Plan a scientific enquiry to determine the most effective process (sieve/filter/evaporate) to separate different mixtures into their component parts by making predictions and taking measurements including mass and volume to control variables</p> 
<p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p>	Y6	Living things	<p>Describe how living things are classified into broad groups (using classification keys) according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>Use their own classification keys to ask and answer questions.</p> 
<p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p>	Y6	Animals	<p>Plan a scientific enquiry to research the answer to the question 'How much physical activity year 6 children should be doing to have a healthy lifestyle?' Consider different types of activity and the frequency/duration.</p> 
<p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>Reporting and presenting findings from enquiries, including conclusions, casual relationships, and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>Using test results to make predictions to set up further comparative and fair tests</p>	Y6	Animals	<p>Plan a scientific enquiry to answer the question 'What percentage of year 6 children lead an active lifestyle and what type of activity do they do?' Recording data in a bar chart, presenting findings, conclusions and degree of trust in both oral and written forms and use results to ask further questions.</p> 
<p>Identifying scientific evidence that has been used to support or refute ideas or arguments</p>	Y6	Evolution and	<p>Write a balanced argument for and against evolution to</p>

		inheritance	<p>explain how scientific ideas have changed over time.</p> <p>OR</p> <p>Design a creature for a chosen habitat with descriptions of adaptations and construct a balanced argument using scientific evidence to support or refute ideas</p>
<p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>Reporting and presenting findings from enquiries, including conclusions, casual relationships, and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</p>	Y6	Electricity	<p>Plan a scientific enquiry to answer the question 'Is there a relationship between daytime light levels and energy output from solar panels?' Showing data in line graphs and reporting conclusions, causal relationships and degree of trust in results in both oral and written forms.</p> 