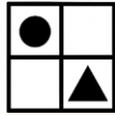


Enquiry Types

Identifying, grouping and classifying



Making observations and measurements to name, sort and organise items, looking for connections, similarities and differences.

Observing over time



Observing changes that occur over a period of time ranging from minutes to months.

Pattern seeking



Identifying patterns and looking for causal relationships in enquiries where variables are difficult to control.

Comparative testing



Changing one variable, measuring another whilst keeping all others the same. Data from the results leads to a bar chart.

Fair testing



Changing one variable, measuring another whilst keeping all others the same. Data from the results leads to a scatter or a line graph.

Research using secondary sources



Using a range of secondary sources, including books, websites, and video, to answer scientific questions, learn how scientific ideas have changed over time and research famous scientists.

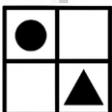
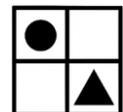
EYFS Big Enquiry Question Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	<p>What changes can we find – Autumn Diary of a ‘rotting’ pumpkin over a number of weeks?</p> <div style="text-align: center;">  </div> <p><i>Make observations using their senses and simple equipment.</i></p>	<p>What happens to a tooth left in coke?</p> <div style="text-align: center;">  </div> <p><i>Offer explanations for why things might happen.</i></p>	<p>Can your sort animals into nocturnal & diurnal?</p> <div style="text-align: center;">  </div> <p><i>Talk about what they see, using a wide vocabulary.</i></p> <p style="text-align: center;">Which reflective material will us safe?</p> <div style="text-align: center;">  </div> <p><i>Choose the right resources to carry out their own plan.</i></p>	<p>What happens to cress seeds when we plant them?</p> <div style="text-align: center;">  </div> <p><i>Show curiosity and ask questions.</i></p>	<p>What is the life cycle of a butterfly?</p> <div style="text-align: center;">  </div> <p><i>Talk about what they see, using a wide vocabulary.</i></p>	<p>How have we grown and changed?</p> <div style="text-align: center;">  </div> <p><i>Use drawing to represent ideas.</i></p>

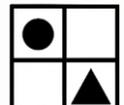
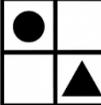
Key Stage 1 Big Enquiry Question Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	<p>How does the colour of leaves change over the year?</p>  <p><i>Observe closely, using simple equipment.</i></p>	<p>How can we organise all the zoo animals?</p>  <p><i>Identify and classify.</i></p>	<p>How does the colour of leaves change over the year?</p>  <p><i>Observe closely, using simple equipment.</i></p>	<p>Which is the best material for Humpty Dumpty's crash mat?</p>  <p><i>Perform simple tests.</i></p>	<p>What are the most common British plants and where can we find them?</p>  <p><i>Gather and record data to help in answering questions.</i></p>	<p>Do all leaves have the shape?</p>  <p><i>Use their observations and ideas to suggest answers to questions.</i></p>
Year 2	<p>What happens to my bean after I have planted it?</p>  <p><i>Observe and measure closely using simple equipment.</i></p>	<p>Which material makes the best umbrella for Super Ted?</p>  <p><i>Perform simple test</i> <i>Gather and record data to help in answering questions.</i></p>	<p>Which habitat do worms prefer? Where can we find the most worms?</p>  <p><i>Identify and classify.</i></p>	<p>Which offspring belong to which animals?</p>  <p><i>Use their observations and ideas to suggest answers to questions.</i></p>	<p>What food do you need in a healthy diet and why?</p>  <p><i>Ask simple questions and recognise they can be answered in different ways</i></p>	

Lower Key Stage 2 Big Enquiry Question Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3/4 A	<p>Why are people cutting down the rainforest and what effect does it have?</p>  <p><i>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</i></p>	<p>Which teeth decay teeth most over time?</p>  <p><i>Make systematic and careful observations.</i></p>	<p>Which materials are conductors?</p>  <p><i>Use results to draw simple conclusions.</i></p>	<p>How does the thickness of a conducting material affect how bright the lamp is?</p>  <p><i>Set up simple practical enquiries, comparative and fair tests.</i></p>	<p>Is there a link between how load it is in school and the time of day? Is it the same in every area of school?</p>  <p><i>Use straightforward scientific evidence to answer questions or support their findings.</i></p>	<p>Which take away cup is the best insulator?</p>  <p><i>Take accurate measurements using standard units – Data loggers</i></p>
Year 3/4 B	<p>Who was Mary Anning and what did she discover?</p>  <p><i>Ask relevant questions and use different types of scientific enquiries to answer them.</i></p>	<p>Which materials are magnetic?</p>  <p><i>Use results to make predictions for new values.</i></p>	<p>How does the distance between the shadow puppet and the screen affect the size of the shadow?</p>  <p><i>Take accurate measurements using standard units</i></p>	<p>What happens to celery when it is left in a glass of coloured water?</p>  <p><i>Identify changes related to simple scientific ideas and processes.</i></p>	<p>What material protects an egg the most?</p>  <p><i>Set up simple practical enquiries, comparative and fair tests.</i></p>	<p>How can we group the food that we eat?</p>  <p><i>Gather, record, classify and present data in a variety of ways to help in answering questions.</i></p> <p><i>Record findings using simple scientific language</i></p>

Upper Key Stage 2 Big Enquiry Question Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	<p>How does the surface area of a parachute affect the time it takes to fall to the ground?</p>  <p><i>Use test results to make predictions to set up further comparative and fair tests.</i></p>	<p>Is there a pattern between the size of a planet and the time taken to travel round the sun?</p>  <p><i>Draw conclusions based on data and observations. Use scientific knowledge and understanding to explain findings.</i></p>	<p>Can you group these materials based on whether they are soluble or insoluble?</p>  <p><i>Record data and results of increasing complexity using scientific diagrams and labels and tables.</i></p>	<p>Which type of material is the best thermal insulator?</p>  <p><i>Carry out comparative and fair tests</i></p>	<p>How did Jane Goodall's life impact chimpanzees?</p>  <p><i>Ask their own questions and plan different types of scientific enquiries to answer them.</i></p>	<p>What happens to a spider plant cutting when left in water?</p>  <p><i>Take measurements, using a range of scientific equipment. Observe changes over different periods of time, noticing patterns, and grouping and classifying things.</i></p>
Year 6	<p>How does the voltage of batteries in a circuit affect the volume of the buzzer?</p>  <p><i>Take repeat measurements, using a data logger.</i></p>	<p>Which material is the most reflective?</p>  <p><i>Plan a comparative scientific enquiry, recognising independent, dependent and controlled variables.</i></p> <p>How do our eyes adapt to the dark?</p>  <p><i>Present findings in an oral presentation.</i></p>	<p>Do all flowers have the same number of petals?</p>  <p><i>Use results to plan further comparative tests.</i></p>	<p>Which organs of the body make up the circulatory system and where are they found?</p>  <p><i>Record data using scientific diagrams and labels.</i></p>	<p>How does my heart rate change over the day?</p>  <p><i>Observe changes over time and notice patterns.</i></p> <p><i>Record data as a line graph.</i></p>	<p>What happened when Charles Darwin visited the Galapagos Islands?</p>  <p><i>Report and present findings from enquiries, written for display.</i></p> <p>Compare the skeleton of apes, humans and neanderthals – how are they similar and how are they different?</p>  <p><i>Use scientific knowledge and understanding to explain findings.</i></p>