



# Brindle St Joseph's Catholic Primary School - Science Units & Enquiry Overview



Observing Over Time

Comparative & Fair Test

Grouping & Classifying

Researching

Pattern Seeking

Cycle A						
	Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
Rec & Year 1	<b>Seasonal Change (EYFS)</b>	<b>Forces (EYFS)</b>	<b>See, Hear &amp; Feel - Materials (Y1)</b>		<b>Animals (including humans) (EYFS)</b>	
<i>Scientific Enquiry Focus</i>	How does the natural world change with seasons? How does a puddle change over time? How does a snowman change as it melts?	Explore how cars move down ramps/gutters - what happens if you change the material on the ramp? How does the ramp feel?	Which material makes the best umbrella/ curtains/ gymnast's leotard etc?  How does a toy's shadow change during the day?		Name and describe plants and animals they will find in the school grounds.  mammals).	
Year 2 & 3	<b>Light (Y3)</b>		<b>Plants - Plant Growth (Y2)</b>		<b>Animals (including humans) (Y2)</b>	<b>Living Things and Their Habitats (Y2)</b>
<i>Scientific Enquiry Focus</i>	Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.  <i>Drawings</i>		Observe coloured water travelling up plants stem.  <i>Labelled Diagrams</i>		<i>Observing animals grow over time.</i>	<i>Research into animals' diets to create simple food chains.</i>



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Year 4 & 5	Animals - Teeth, Eating and Digestion (Y4)	Forces (Y5)	Properties & Changes of Materials (Y5)		Earth and Space (Y5)	Living Things and their Habitats - Life Cycles (Y5)
Scientific Enquiry Focus	Research food chains based on different areas in the world.	Designing and making a variety of parachutes and carrying out fair tests to determine which designs are the most effective.  Stopwatches Tables	Investigate dissolving of salt/sugar. Patterns in time taken to dissolve with different temperatures/ different sizes of sugar/ stirring or not stirring. Thermometers / Stopwatches		Group planets based on their size/ atmosphere/ orbit time/ rotational period etc. Modelling proven theories. Labelled scientific diagrams	Grow plants from cuttings and observe butterflies hatching from chrysalis.
Year 6	Electricity	Animals - Exercise, Health and the Circulatory System	Light	Evolution & Inheritance	Living Things and their Habitats	Material Properties - Testing Material Properties
Scientific Enquiry Focus	Does the number of cells affect the brightness of a bulb in the circuit? Data Logger	How does your pulse rate change after different types of exercise? Line Graph	Investigating shadows of objects being the same shape as the objects.	Research into palaeontologists such as Mary Anning. Look at how Charles Darwin and Alfred Wallace developed their ideas on evolution. Research into the proof of evolution.	Use classification systems and keys to identify some animals and plants in the immediate environment Classification Keys	



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Cycle B						
	Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
Rec & Year 1	Plants (Y1)		Humans (Y1)		Earth and Space (EYFS)	Living Things & Their Habitats (Y1)
<i>Scientific Enquiry Focus</i>	<p>What do plants need to grow well (water, light, warmth)?</p> <p>Do plants with bigger seeds grow taller?</p> <p>Grouping plants based on features.</p>		<p>What do people look like? What do we have in common? How do you look like some of your family members?</p> <p>Are taller children faster? Are smaller children stronger?</p>		<p>Research and learn about the role of an astronaut.</p> <p>How is space different to planet Earth?</p>	<p>Sort animals based on where they live.</p> <p>Look for minibeasts and plants in different areas of the school grounds/ local area.</p>
Year 2 & 3	Uses of Everyday Materials (Y2)	Rocks (Y3)	Animals (Skeletons) (Y3)	Forces and Magnets (Y3)	The Environment (Y3)	Scientists & Inventors (Y3)
<i>Scientific Enquiry Focus</i>	Identifying and classifying uses of different materials	Testing rocks in relation to porous, density and durability - how do they compare?	Identifying and grouping animals with and without skeletons.	How can we make things move? Exploring patterns in relation pushing and pulling. Does this happen every time? What if...?	The children are to research ways in which we can reduce, re-use and recycle based on the information they have learnt.	ENRICH - Explore the work of key scientific and inventors linked with the year groups curriculum.



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Year 4 & 5	States of Matter & The Water Cycle (Y4)		Electricity (Y4)	Living things and their Habitat - Classifying (Y4)	Sound (Y4)	Animals - Human Life Cycles (Y5)
Scientific Enquiry Focus	<p>ONE - Observe the evaporation of water from different places in the school linked with temperature (outside, on the teacher's desk, on the radiator, in the fridge). <b>Thermometers</b></p> <p>TWO - Children are to create their own 'mini world' and observe these over the course of a week - can they link their observations to stages of the water cycle?</p>		Investigate which materials are conductors and which are insulators.	Using and making simple guides or keys to explore and identify plants and animals. <b>Keys</b>	Finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses. <b>Data Loggers Bar Chart</b>	Researching gestation periods of different mammals. <b>Bar Charts</b> Research naturalists e.g. Jane Goodall
Year 6	Electricity	Animals - Exercise, Health and the Circulatory System	Light	Evolution & Inheritance	Living Things and their Habitats	Mini Project - Testing Material Properties
Scientific Enquiry Focus	Does the number of cells affect the brightness of a bulb in the circuit? <b>Data Logger</b>	How does your pulse rate change after different types of exercise? <b>Line Graph</b>	Investigating shadows of objects being the same shape as the objects.	Research into palaeontologists such as Mary Anning. Look at how Charles Darwin and Alfred Wallace developed their ideas on	Use classification systems and keys to identify some animals and plants in the immediate environment <b>Classification Keys</b>	Planning and completing a range of tests in order to find the best material suitable for the intended project. What is the most suitable material for ....?



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				<i>evolution. Research into the proof of evolution.</i>		
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