



What are the aims and intentions of this curriculum?

Our school science curriculum is aligned to the national curriculum for science, which aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

Term	Topic	Key Learning	Key Vocabulary
Autumn 1	Forces	<p>Know that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p> <p>Know the effect of air resistance, water resistance and friction on moving surfaces.</p> <p>Know that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect</p> <p>Independently ask scientific questions based on scientific experiences</p> <p>decide for themselves how to gather evidence to answer a scientific question</p> <p>During an enquiry, they make decisions whether they need to take repeat readings</p> <p>Take measurements with increasing accuracy and precision</p> <p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Record measurements using a table</p> <p>answer their own and others' questions based on measurements they have taken</p> <p>Discuss evidence from other groups to support or refute their answer</p> <p>Conclude causal relationships and patterns from their evidence</p> <p>Evaluate the choice of method used, the control of variables, the precision and accuracy of measurements</p>	gravity, air resistance, water resistance, friction, predict, conclude, measure, classify.
Autumn 2	Earth & Space	<p>Know how the Earth (and other planets) move in relation to the Sun</p> <p>Know how the moon moves in relation to the Earth.</p> <p>Know that the Sun, Earth and Moon are roughly spherical bodies.</p> <p>Know that day and night occur because of the rotation of the Earth.</p> <p>Know why the sun appears to move across the sky.</p> <p>Take measurements with increasing accuracy and precision</p> <p>Record data using a table</p>	Earth, Sun, Moon, Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune, spherical, solar system, rotates, star, orbits, planets, axis.



Science Curriculum: Year 5

		<p>Present findings using scientific diagrams and writing</p> <p>Answers questions based on observations and information from secondary sources</p> <p>Identify patterns and relationships</p> <p>Explain their findings using their subject knowledge</p> <p>Identify any limitations that reduce the trust they have in their data</p>	
Spring	Properties and changes of materials	<p>Know how materials can be grouped according to their properties, including, hardness, solubility, transparency, conductivity (electrical and thermal), and responses to magnets.</p> <p>Know that some materials will dissolve in liquid to form a solution.</p> <p>Know how to recover substances from a solution.</p> <p>Know how mixtures (of solids, liquids and gases) might be separated, including through filtering, sieving and evaporating.</p> <p>Know some particular uses of everyday materials, including metals, wood and plastic.</p> <p>Know that dissolving, mixing and changes of state are reversible changes.</p> <p>Know that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning, and the action of acid on bicarbonate of soda.</p> <p>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>carry out fair tests, recognising and controlling variables</p> <p>decide what observations or measurements to make over time and for how long</p> <p>Identify patterns and relationships using a suitable sample.</p> <p>record and present evidence using tables, labelled scientific diagrams and writing</p> <p>answer their own and others' questions based on observations they have made and measurements they have taken</p> <p>Conclude by identifying causal relationships and patterns</p> <p>identify results that do not fit the overall pattern</p>	<p>solid, liquid, gas, state, evaporation, condensation, reversible, irreversible, solution, materials, substances, hardness, solubility, transparency, conductivity, filtering, sieving, compare, classify, interpret, conclude.</p>
Summer 1	Animals including humans	<p>Know the changes humans go through as they develop to old age.</p> <p>Answer their own and others' questions based on observations they have made</p> <p>Communicate their findings using relevant scientific language and illustrations</p>	<p>human, development, baby, toddler, child, teenager, adult, puberty.</p>
Summer 2	Living things and their habitats	<p>Know the life cycles of a mammal, amphibian, insect and bird.</p> <p>Know the difference between life cycles (listed above).</p> <p>Know the life process of reproduction in some plants and animals.</p> <p>Record using tables, Venn diagrams, scientific diagrams and writing</p> <p>Answers questions based on observations and information from secondary sources</p> <p>Identify casual relationships and patterns in the natural world</p>	<p>life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings.</p>



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		Report and present findings from enquiries Explain their findings using their subject knowledge	
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