



Science Long Term Plan: Year 3

*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	Rocks	<p>Know how different rocks can be compared and grouped according to appearance and simple properties.</p> <p>Know that fossils are formed when things that have lived are trapped within rock.</p> <p>Know that soils are made from rocks and organic matter.</p> <p>Answer relevant questions using different types of scientific enquiries</p> <p>Make systematic and careful observations</p> <p>Measure using a range of equipment in standard units</p> <p>Select from a range of practical resources to gather evidence to answer questions generated by the teacher</p> <p>Carry out a comparative test</p> <p>Record results using a table, scientific diagrams and writing</p> <p>interpret their data to generate simple comparative statements based on their evidence</p> <p>draw conclusions based on their evidence and current subject knowledge</p> <p>identify naturally occurring patterns and causal relationships</p>	<p>Properties, appearance, physical, fossils, formed, organic, matter, permeable, palaeontology, compost.</p>
Autumn 2	Forces & magnets	<p>Know that things move differently on different surfaces</p> <p>Know that some forces need contact between 2 objects, but magnetic forces can act at a distance.</p> <p>Know some materials which are attracted to a magnet.</p> <p>Know that magnets have 2 poles.</p> <p>Know which poles will attract or repel.</p> <p>Answer relevant questions using different types of scientific enquiries</p> <p>make systematic and careful observations</p> <p>Measure using a range of equipment</p> <p>Carry out a comparative test</p>	<p>Forces, push, pull, contact, magnetic, non-magnetic, attract, repel, pole.</p>



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		<p>Record results using a table and bar charts  interpret their data to generate simple comparative statements based on their evidence  Draw conclusions based on their evidence and current subject knowledge  identify naturally occurring patterns and causal relationships  Predict using prior knowledge</p>	
Spring 1	Light	<p>Know that they need light in order to see things.  Know that the dark is the absence of light.  Know that light can be reflected from surfaces.  Know that light from the sun can be dangerous and that there are ways to protect their eyes.  Know that shadows are formed when the light from a light source is blocked by a solid object.  Know that there are patterns in the way that the size of shadows changes.  Answer relevant questions using different types of scientific enquiries  make systematic and careful observations  Measure using a range of equipment in standard units  Select from a range of practical resources to gather evidence to answer questions generated by the teacher  Carry out a comparative test  Record results using a table  interpret their data to generate simple comparative statements based on their evidence  draw conclusions based on their evidence and current subject knowledge  identify naturally occurring patterns and causal relationships  Predict using prior knowledge  Record evidence using sentence stems</p>	<p>light, source, dark, reflect, see, illuminate, visible, reflect, UV light, protect, dangerous, opaque, translucent, transparent, block, shadow.</p>
Spring 2	Plants	<p>Know the functions of different parts of flowering plants:</p> <ul style="list-style-type: none"> <li>• Roots, stem/trunk</li> <li>• Leaves</li> <li>• Flowers</li> </ul> <p>Know the requirements of plants for life and growth:</p> <ul style="list-style-type: none"> <li>• Air</li> <li>• Light</li> <li>• Water</li> <li>• Nutrients from soil</li> <li>• Room to grow</li> </ul> <p>Know how water is transported in plants.  Know the part played by flowers in the life cycle of a flowering plant (including pollinations, seed formation and seed dispersal).</p>	<p>roots, stem, trunk, leaves, flowers, anchor, nutrients, transport, seeds, carbon dioxide, sunlight, absorb, air, light, water, nutrients, soil, transport, stem, evaporate, compare, temperature, leaves, flower, petals, sepal, stamen, anther, filament, stigma, style, ovary, ovule, pollen tube, pollen, pollination, fertilisation.</p>



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		<p>Answer relevant questions using different types of scientific enquiries make systematic and careful observations Measure using a range of equipment in standard units Carry out a comparative test Record results using a table, writing and scientific diagrams interpret their data to generate simple comparative statements based on their evidence draw conclusions based on their evidence and current subject knowledge Predict using current subject knowledge Report findings from enquiries, including oral and written explanations and presentations of results and conclusions</p>	
Summer	Animals including humans	<p>Know that animals, including humans:</p> <ul style="list-style-type: none"><li>• need the right type and amount of nutrition</li><li>• cannot make their own food</li><li>• get nutrition from what they eat.</li></ul> <p>Know that humans and some other animals have skeletons and muscles for support, protection and movement. answer questions posed by the teacher Make careful observations using secondary sources Recording findings using simple scientific language, drawings, labelled diagrams and tables Use straightforward scientific evidence to answer questions Investigate patterns and casual relationships</p>	<p>nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, skull, ribs, spine, muscles, joints.</p>