



## Science Overview / Long Term Planning

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y3	<p><b>Skeletal &amp; Muscular Systems</b> This project teaches children about the importance of nutrition for humans and other animals. They learn about the role of a skeleton and muscles and identify animals with different types of skeleton.</p>		<p><b>Rocks</b> Taught alongside our Rocks, Relics and Rumbles geography project, this unit of work teaches children to compare rocks, how fossils are formed and investigate different soil types.</p>	<p><b>Forces &amp; Magnets</b> This project teaches children about contact and non-contact forces, including friction and magnetism. They investigate frictional and magnetic forces, and identify parts of a magnet and magnetic materials.</p>	<p><b>Plants Nutrition &amp; Reproduction</b> This project teaches children about the requirements of plants for growth and survival. They describe the parts of flowering plants and relate structure to function, including the roots and stem for transporting water, leaves for making food and the flower for reproduction.</p>	<p><b>Light &amp; Shadows</b> This project teaches children about light and dark. They investigate the phenomena of reflections and shadows, looking for patterns in collected data. The risks associated with looking at the Sun are also explored.</p>
Y4	<p><b>Food &amp; The Digestive System</b> This project teaches children about the human digestive system. They explore the main parts, starting with the mouth and teeth, identifying teeth types and their functions. They link this learning to animals' diets and construct food chains to show the flow of energy.</p>	<p><b>Sound</b> This project teaches children about sound and how sounds are made and travel as vibrations through a medium to the ear. They learn about pitch and volume and find out how both can be changed.</p>	<p><b>States of Matter</b> This project teaches children about solids, liquids and gases and their characteristic properties. They observe how materials change state as they are heated and cooled, and learn key terminology associated with these processes.</p>	<p><b>Groups &amp; Classifying</b> This project teaches children about grouping living things, known as classification. They study the animal and plant kingdoms and use and create classification keys to identify living things.</p>	<p><b>Electrical Circuits &amp; Components</b> This project teaches children about electrical appliances and safety. They construct simple series circuits and name their parts and functions, including switches, wires and cells. They investigate electrical conductors and insulators and identify common features of conductors. It also teaches children about programmable devices. They combine their learning to design and make a nightlight.</p>	
Y5	<p><b>Forces &amp; Mechanisms</b> This project teaches children about the forces of gravity, air resistance, water resistance and friction, with children exploring their effects. They learn about mechanisms, their uses and how they allow a smaller effort to have a greater effect.</p>	<p><b>Earth &amp; Space</b> This project teaches children about our Solar System and its spherical bodies. They describe the movements of Earth and other planets relative to the Sun, the Moon relative to Earth and the Earth's rotation to explain day and night.</p>	<p><b>Living Things &amp; Their Habitats</b> Taught alongside our Sow, Grow &amp; Farm geography project, this unit of work teaches children about food webs, plant reproduction, the parts of a flower and methods of farming practice.</p>	<p><b>Human Reproduction &amp; Ageing</b> This project teaches children about animal life cycles, including the human life cycle. They explore human growth and development to old age, including the changes experienced during puberty and human reproduction.</p>	<p><b>Properties &amp; Changes of Materials</b> This project teaches children about the wider properties of materials and their uses. They learn about mixtures and how they can be separated using sieving, filtration and evaporation. They study reversible and irreversible changes, and use common indicators to identify irreversible changes.</p>	
Y6	<p><b>The Circulatory System</b> This project teaches children about the transport role of the human circulatory system, its main parts and their primary functions. They learn about healthy lifestyle choices and the effects of harmful substances on the body.</p>		<p><b>Living Things &amp; Their Habitats</b> Taught alongside our Frozen Kingdoms geography project, this unit of work teaches children how to classify living things, research animals and plants from a range of habitats, use and construct classification keys and identify how plants and animals are adapted to suit their environment.</p>	<p><b>Electrical Circuits &amp; Components</b> This project teaches children about electrical circuits, their components and how they function. They recognise how the voltage of cells affects the output of a circuit and record circuits using standard symbols. It also teaches children about programmable devices, sensors and monitoring. They combine their learning to design and make programmable home devices.</p>	<p><b>Light Theory</b> This project teaches children about the way that light behaves, travelling in straight lines from a source or reflector, into the eye. They explore how we see light and colours, and phenomena associated with light, including shadows, reflections and refraction.</p>	<p><b>Evolution &amp; Inheritance</b> This project teaches children how living things on Earth have changed over time and how fossils provide evidence for this. They learn how characteristics are passed from parents to their offspring and how variation in offspring can affect their survival, with changes (adaptations) possibly leading to the evolution of a species.</p>