










Science Curriculum Overview

<u>Year Group</u>	<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<u>1</u>	 <p><u>Human Senses</u> This project teaches children that humans are a type of animal known as a mammal. They name and count body parts and identify similarities and differences. They learn about the senses, the body parts associated with each sense and their role in keeping us safe</p>	 <p><u>Everyday Materials</u> This project teaches children that objects are made from materials. They identify a range of everyday materials and their sources. Children investigate the properties of materials and begin to recognise that a material's properties define its use</p>	 <p><u>Seasonal Changes</u> This project teaches children about the seasons, seasonal changes and typical seasonal weather and events. They learn about measuring the weather and the role of a meteorologist. Children begin to learn about the science of day and night and recognise that the seasons have varying day lengths in the UK</p>  <p><u>Mini Investigation Unit</u> <u>Splendid Skies</u> Imagine floating high above land and sea on a bed of clouds, silently sweeping by on a billowing breeze. Back down to earth, let's take a walk outdoors. But what should we wear? Wellington boots? A sun hat? Maybe a warm coat? How do we know what the weather will be like today?</p>	 <p><u>Plant Parts</u> This project teaches children about wild and garden plants by exploring the local environment. They identify and describe the basic parts of plants and observe how they change over time</p>	 <p><u>Animal Parts</u> This project teaches children about animals, including fish, amphibians, reptiles, birds, mammals and invertebrates. They identify and describe their common structures, diets, and how animals should be cared for.</p>	






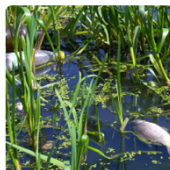
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<u>2</u>	 <p style="text-align: center;"><u>Everyday Materials</u></p> <p>This project teaches children that objects are made from materials. They identify a range of everyday materials and their sources. Children investigate the properties of materials and begin to recognise that a material's properties define its use.</p>	 <p style="text-align: center;"><u>Animal Survival</u></p> <p>This project teaches children about growth in animals by exploring the life cycles of some familiar animals. They build on learning about the survival of humans by identifying the basic needs of animals for survival, including food, water, air and shelter.</p>	 <p style="text-align: center;"><u>Uses of materials</u></p> <p>This project teaches children about the uses of everyday materials and how materials' properties make them suitable or unsuitable for specific purposes. They begin to explore how materials can be changed</p>	 <p style="text-align: center;"><u>Plant Survival</u></p> <p>This project teaches children about the growth of plants from seeds and bulbs. They observe the growth of plants first-hand, recording changes over time and identifying what plants need to grow and stay healthy.</p>	 <p style="text-align: center;"><u>Human Survival</u></p> <p>This project teaches children about the basic needs of humans for survival, including the importance of exercise, nutrition and good hygiene. They learn how human offspring grow and change over time into adulthood.</p>	 <p style="text-align: center;"><u>Habitats</u></p> <p>This project teaches children about habitats and what a habitat needs to provide. They explore local habitats to identify and name living things and begin to understand how they depend on one another for food and shelter.</p>



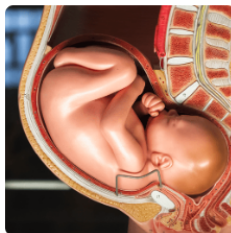
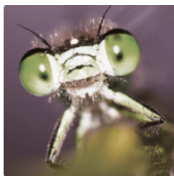

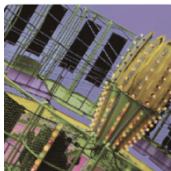
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<u>3</u>	 <p><u>Animal Nutrition and the Skeletal System</u></p> <p>This project teaches children about the importance of nutrition for humans and other animals. They learn about the role of a skeleton and muscles and identify animals with different types of skeleton.</p>  <p><u>Mini Investigation Unit Predator!</u></p> <p>It's time to take a walk on the wild side. Find out who's coming to visit. Is it a bug munching lizard or an eagle-eyed bird of prey? Whatever it is, do you think you can handle it? Learn about creepy crocs and amazing alligators, the deadly assassin bug and the voracious Venus flytrap.</p>	<p><u>Forces and Magnets</u></p> <p>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 material</p>   <p><u>Investigation Unit – Mighty Metals</u></p> <p>You're an engineer, a scientist, a maker of men (iron men, of course). Explore the scientific world of forces and magnetism, metals and materials. Expand your mind as you test and trial, build and move. Which force is at play as you slide down a slide or swing on a swing? Can you explain why magnets repel and attract? Can you make a penny look shiny and new or build a steel band from pots and pans?</p>	 <p><u>Plant Nutrition and Reproduction</u></p> <p>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><u>Light and Shadows</u></p> <p>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 the Sun are also explored.</p>		


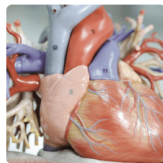
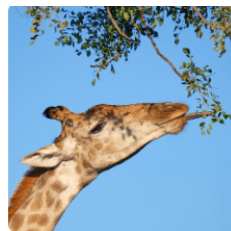
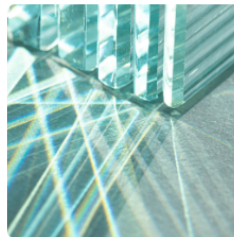

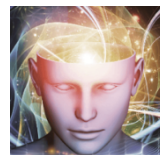
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<u>4</u>	 <p><u>Food and Digestive System</u></p> <p>This project teaches children about the human digestive system. They explore the main parts, starting with the mouth and teeth, identifying teeth types and their functions. They link this learning to animals' diets and construct food chains to show the flow of energy.</p>	 <p><u>Sound</u></p> <p>This project teaches children about sound, how sound is made and how sound travels as vibrations through a medium to the ear. They learn about pitch and volume and find out how both can be changed.</p>	 <p><u>Grouping and Classifying</u></p> <p>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><u>States of Matter</u></p> <p>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><u>Electrical Circuits and Conductors</u></p> <p>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>  <p><u>Mini Investigation Unit</u></p> <p><u>Pollution and habitats</u></p> <p>Children learn about different types of pollutants that we might find in water.</p>	

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<u>5</u>	 <u>Earth and Space</u> This project teaches children about our Solar System and its spherical celestial bodies. They describe the movements of the Earth and the other planets relative to the Sun, the Moon relative to Earth, and the Earth's rotation to explain day and night.	 <u>Forces and Mechanisms</u> 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.	 <u>Human Reproduction and Ageing</u> 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 <u>reproduction</u> .  <u>Investigation Unit</u> <u>Beast Creator</u> A bug, a creepy-crawly, a beast. He'll tickle your skin then go in for the sting. Arachnids, insects, molluscs and myriapods, hiding in nooks and beneath darkened rocks. Come search for these minibeasts, and let's sort them out. How many legs? How many wings? Who does it eat and who eats it? Can you classify it?		 <u>Everyday materials</u> 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.  <u>Investigation Unit</u> <u>Scream Machine</u> Learn about the science behind roller coasters Time for some mini-investigations. Cam mechanisms, pendulums, pulleys and prototypes. Let's go behind the scenes to see forces at work.	

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6	<div><p><u>Circulatory System</u> This project teaches children about the transport role of the human circulatory system, its main parts and primary functions. They learn about healthy lifestyle choices and the effects of harmful substances on the body.</p></div> <div><p><u>Mini Investigation Unit</u></p><p><u>Blood Heart</u> Crimson, scarlet, burgundy, cherry. Blood flows through our bodies in all its vibrant shades of red. Let's explore our circulation system. Now, surgeons, don't be squeamish as we dissect an animal heart and examine the veins, arteries and chambers up close. They all work hard to move blood around our bodies.</p></div>		<div><p><u>Evolution and Inheritance</u> 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></div>	<div><p><u>Light Therapy</u> 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></div>	<div><p><u>Electrical circuits and Conductors</u> 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></div> <div><p><u>Mini Investigation Unit – ID</u> Who do you think you are? Are you an extrovert or an introvert, a singleton, a twin or even a triplet? Let's discover what makes you you. From your fingerprints and footprints, to your genes and DNA, everything is unique to you. So why do you look like Mum or Dad, or even Auntie Rose? Explore the world of human identity and how our unique features can be used to tell us apart from others or help to solve a crime.</p></div>	

