

**Science Long Term Plan 2021-2022**

<b>Year group</b>	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
<b>N</b>	Talk about what they see through various science experiments.	Visit to Buck woods to explore what happens in Autumn to the leaves etc. Plus how the weather changes. Talk about how we change and how our family changes over time.	Explore how vehicles work. Think about different occupations	Explore and talk about different textures. Understand how we care for animals.	Plant seeds and care for plants. Understand life cycle of a plant and caterpillar.	Explore different forces, such as pushing boats under water and seeing how they pop back up. Thing about different materials and how they change, ie melting ice in the sun.
<b>R</b>	Woodland Animals Nocturnal Animals Plants Local Area	Celebrations and Festivals Historical events	Neil Armstrong – 1 <sup>st</sup> man on the Moon Tim Peake – English Spaceman at the International Space Centre Helen Sharman	Changes in food	Historic Figure – The Queen	Contrasting Locality
<b>1</b>	<b>Animals, including humans</b> Five senses. Identify and label basic body parts.	<b>Animals, including humans</b> Sorting and classifying herbivores, omnivores and carnivores. What is a mammal, fish, amphibian and reptile? Comparing animals	<b>Everyday materials</b> Materials and their properties Identifying and sorting Exploring the properties and materials Performing tests: What is the best material for an umbrella?		<b>Plants</b> Grow plants from seeds Group and classifying Identify and describe basic plant structure. Deciduous and evergreen trees. Local plants and trees.	
<b>Seasonal changes</b> Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies						
<b>2</b>	<b>Uses of everyday materials</b> Comparing everyday materials	<b>Animals, including humans</b>	<b>Plants</b> How seeds grow	<b>Living things and their habitats</b> Differences between things that are living, dead,		

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	Materials change shape by squashing, bending, twisting and stretching.		Exercise and healthy living What animals and humans need to survive Importance for humans of exercise and nutrition.	What plants need to live and grow	and things that have never been alive Habitats Early food chains
3	<b>Animals, including humans</b> Nutrition, linked to what we eat Skeletons and muscles	<b>Forces and magnets</b> Compare how things move on different surfaces. Magnetic poles. How magnets attract materials. Compare and group together a variety of everyday materials.	<b>Rocks</b> How rocks are formed Sorting and comparing different kinds of rocks Fossil formation Paleontologist Mary Anning Soil	<b>Plants</b> Function of different parts of flowering plants What different plants need to flourish Water transportation within plants. The part flowers play in the life cycle of flowering plants.	<b>Light</b> Sources of light Dangers of sunlight Shadows
4	<b>Sound</b> Sources, Vibration, Loud and faint, pitch, volume	<b>States of matter</b> Solids, liquids and gases Heating and cooling (no baking, etc). Evaporation and condensation.	<b>Electricity</b> Precautions of electricity. Simple circuits. Basic parts of a circuit. Switches. Common conductors and insulators.	<b>Animals, including humans</b> Digestive system. Teeth. Food Chains.	<b>Living things and their habitats</b> Local and wider environment Environments can change
5	<b>Living things and their habitats</b>	<b>Forces</b> Gravity	<b>Earth and space</b> Earth relative to the	<b>Properties and changes of materials</b>	<b>Animals, including humans</b> <b>Living things and their habitats</b>

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	<p>Life cycles of a mammal, an amphibian, an insect and a bird.</p>	<p>Air resistance Water resistance Friction Gears, pulleys, levers and springs</p>	<p>sun. Moon relative to the Earth. Relationship between sun, earth and moon. Earth's rotation. Day and night.</p>	<p>Comparing and grouping together everyday materials on properties. Dissolving Evaporating Filtering Reversible and irreversible changes How chemists create new materials (Spencer Silver, who invented the glue for sticky notes)</p>	<p>Changes as humans develop from birth to old age</p>	<p>Birth, growth, development and reproduction in some plants and animals.</p>
6	<p><b>Light</b> How light travels. How we see things. Shadows Reflection</p>	<p><b>Electricity</b> Representing simple circuits using recognised symbols. Construct simple series circuits. Design burglar alarm</p>	<p><b>Living things and their habitats</b> Classification of living things Vertebrates and invertebrates Classifying reptiles, amphibians, mammals, insects. Carl Linnaeus</p>	<p><b>Evolution and inheritance</b> Importance of fossils. Living things produce offspring of the same kind. Adaptation of plants and animals to their environment. Idea of evolution. Charles Darwin.</p>	<p><b>Animals including humans</b> Circulatory system Heart, blood vessels Impact of diet, exercise and drugs Transport of nutrients through the body</p>	