

Science Long Term Plan 2022-2023

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
N	Talk about what they see through various science experiments.	Talk about how we change and how our family changes over time.	Explore how vehicles work. Look at pull/push vehicle toys	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.
R	Woodland Animals Nocturnal Animals Trees Local Area Understand the effect of changing seasons on the natural world around them.	Local Area Changes in materials Understand the effect of changing seasons on the natural world around them.	Understand the effect of changing seasons on the natural world around them.	Changes in food (noticing and commenting on changes) Understand the effect of changing seasons on the natural world around them.	Understand the effect of changing seasons on the natural world around them.	Contrasting Localities: Recognise some environments that are different from the one in which they live. (Comparing Wrose with Africa) Understand the effect of changing seasons on the natural world around them.
1	Animals, including humans Five senses. Identify and label basic body parts.	Animals, including humans Sorting and classifying herbivores, omnivores and carnivores. What is a mammal, fish, amphibian and reptile? Comparing animals	Everyday materials Materials and their properties Identifying and sorting Exploring the properties and materials Performing tests: What is the best material for an umbrella?	Plants Grow plants from seeds Group and classifying Identify and describe basic plant structure. Deciduous and evergreen trees. Local plants and trees.		
<p>Seasonal changes Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies</p>						

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

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5	<p>Living things and their habitats Life cycles of a mammal, an amphibian, an insect and a bird.</p>	<p>Forces Gravity Air resistance Water resistance Friction Gears, pulleys, levers and springs</p>	<p>Earth and space Earth relative to the sun. Moon relative to the Earth. Relationship between sun, earth and moon. Earth's rotation. Day and night.</p>	<p>Properties and changes of materials 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>Animals, including humans Changes as humans develop from birth to old age</p>	<p>Living things and their habitats Birth, growth, development and reproduction in some plants and animals.</p>
6	<p>Light How light travels. How we see things. Shadows Reflection</p>	<p>Electricity Representing simple circuits using recognised symbols. Construct simple series circuits. Design burglar alarm</p>	<p>Evolution and inheritance 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>Living things and their habitats Classification of living things Vertebrates and invertebrates Classifying reptiles, amphibians, mammals, insects. Carl Linnaeus</p>	<p>Animals including humans Circulatory system Heart, blood vessels Impact of diet, exercise and drugs Transport of nutrients through the body</p>	