

Science Curriculum Whole School

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals Including Humans						
Plants						
Living Things and Their						
Evolution and Inheritance						
Seasonal Changes						
Forces						
Light						
Sound						
Earth and Space						
Electricity						
Materials						

Early Years

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>		<u>Spring 2</u>		<u>Summer 1</u>		<u>Summer 2</u>
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<p>Link to seasons (Autumn) (natural world)</p> <p>Explore the natural world around them - materials. Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary.</p> <p>(leaves, conkers, pine cones etc.)</p>	<p>Link to seasons (Autumn and Winter)</p> <p>Explore the natural world around them. Describe what they see, hear, feel, smell whilst outside.</p>	<p>Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>Talk about the differences between materials and the changes they notice e.g. snow. (season change)</p> <p>Explore how things work and different forces they can feel.</p>	<p>Plant seeds and care for growing plants. Understand the key features of the life-cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and living things.</p> <p>Seasonal Changes - Spring</p>	<p>Explore and talk about different forces they can feel. (water and transport vehicles)</p> <p>Talk about the differences between materials and changes they notice.</p> <p>Seasonal Changes - Summer</p>	<p>Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. (sand, shells, pebbles etc.)</p> <p>Seasonal Changes - Summer</p>
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Year 1 2023 -2024 - to repeat as 2024-2025 as it's a single year group

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<p>Everyday Materials</p> <p>Describing, comparing and contrasting materials.</p> <p>Wood, glass, stone, twigs, straw etc</p> <p>Naming materials</p> <p>Identification of materials</p> <p>Sorting materials</p> <p>Materials for a purpose</p> <p>Everyday materials</p> <p>opaque and transparent</p> <p>waterproof</p>	<p>Animals inc. Humans. The Human body changes.</p> <p>Parts of the body (basic parts such as head, foot, ankle, etc.)</p> <p>Focus on the five senses- Taste experiment</p> <p>How they have changed since being a baby over time.</p> <p>What can they do now that they couldn't do as a baby</p>	<p>Animals inc. Humans</p> <p>5 animal groups, herbivores, carnivores, herbivores and their structures/features.</p> <p>Identify common animals linked to the topic. Such as farm animals, pets (dogs,cat) and other animals such as lion, zebras, fish, birds (duck, hen) frogs, cow, pig, etc</p> <p>Look at what terms carnivore etc and what they are for example, carnivore</p>	<p>Seasonal Changes</p> <p>Name four seasons and clothing and weather for each season and why. Hat, jumper, shorts, tshirt, scarf, gloves, sun glasses etc.</p> <p>Observe changes across the four seasons and how day length varies.</p> <p>Sort items to match the weather and season.</p>	<p>Plants- Focus on plants within the local garden such as rose, daffodils, honeysuckle. Roses in the main school garden.</p> <p>Basic structure of a plant and tree. Look at stem, root and flower petals. Not functions of the plant at this stage.</p> <p>sycamore</p> <p>conker tree</p> <p>ash</p>	<p>Animals inc. Humans</p> <p>Land and sea animals</p> <p>Identify land and sea animals and their homes</p> <p>Sea animals such as whale, dolphin, fish, jelly fish, crab, star fish.</p> <p>Group and sort the type of animals such as amphibians etc</p>

		has sharp teeth as they eat meat	Focus on large tree at back of school. How does it change as spring develops? Observe changes in locality as seasons change such as spring flowers. Begin to identify some plants in preparation for summer 1		
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Year 2 2023 -2024 - to repeat 2024-2025 as it's a single year group

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
<p>Animals inc. Humans</p> <p>Recapped on five animals groups</p> <p>Animals and their offspring Beaver, frog, snake, dragonfly,</p> <p>What living things need to stay alive</p> <p>Growth humans baby to adult building on what changes children noticed in themselves in Year 1 topic.</p> <p>Life cycles of a butterfly (basic)</p> <p>Recap: carnivore herbivore etc</p>	<p>Materials Suitability</p> <p>Grouping and classifying and naming properties</p> <p>Materials: glass, wood, metal (different types) brick, stone, plastic and cardboard.</p> <p>Change of shape of properties for example twisting and bending Stretchy materials Suitable and unsuitable Purpose of materials for example why is a chair not made of cotton wool?</p> <p>Waterproof experiment, building on knowledge from year 1, however deeper</p>	<p>Materials 2 Suitability</p> <p>Investigation of different types of materials such as glass, stone and brick, wood paper and cardboard, metals: plastic</p> <p>Focus on properties, differences and suitability of materials.</p>	<p>Plants: Recapped local plants, growing cress, seeds and beans. Baby plant inside seed(how plants grow and what they need to grow and stay healthy)</p>	<p>Living things and their habitats 1</p> <p>Focus on the local area of school. Animals include fox, badger, owl, deer, frogs and pond fish.</p> <p>Explore the local habitat and it supports life.</p> <p>Basic food chains and the interconnection between, , look back to plants and as the start of all food chains.</p> <p>Food chain of the listed animals.</p> <p>Micro habits: focus on woodlouse.</p>	<p>Living things and their habitats 2</p> <p>Habitats and more complex food chains of sea creatures- sea plants and plankton</p> <p>Shark octopus stingray squid</p> <p>Naming the sources of food for the food chain above</p>

	knowledge looking at how materials change.				
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Years 3 & 4 2023-2024 (Cycle B Rolling Programme)

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
Light Reflection of light Eye protection from light (sun safety) How the eye works (small parts retina, lens, iris, optic nerve and pupil) Label eye. Only Iris changes. Shadows made from opaque object <ul style="list-style-type: none"> Transparent Opaque Translucent 	States of Matter - Solids, Liquids and Gases (split unit) Identify solids, liquids and gases and what the particles look like in each. Freezing and boiling points How heat changes state How water changes state Evaporation and condensation- linked to water cycle	States of Matter - The Water Cycle How the cycle works Role of condensation and evaporation in the cycle Temperature and the water cycle	Electricity Mains and battery operated every item such as fridge tv, remote control, phone. Which generates heat, movement and sounds from the objects. Basic electrical circuits, cell holders, wire, battery and bulb to light Know electric goes around in same direction and there is no break in the circuit Add switches to the circuits. Conductors and insulators	Living Things and their Habitats inc. classification Grouping living things- basic classification keys local areas animals to classify: horse, cow, sheep, alpacas Environmental changes impact on living things Study of local river Worth and pollution on local wildlife. Local environmental changes to wildlife eg litter	Animals inc. Humans - The Digestive System & Teeth Basic function of the digestive system Label parts such as stomach, food pipe Identify different types of teeth and purpose/function: Canine Molar Premolar Locate gums, tongue

Years 3 & 4 2024-2025 (Cycle C Rolling Programme)

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
Animals Inc. Humans keeping healthy food groups diet exercise	Forces and Magnets How things move on surfaces magnetic forces attract and repel magnetic materials	Rocks compare and group	Sound Describe and explain sound sources How sound travels Ways to change pitch	Plants Functions of part of a plant root, stem, trunk, leaves and flowers.	Living Things and Their Habitats - look at a variety of habitats in different localities

portion size cant make own food get it from what eat. Skelton names muscles: arm, leg, bicep, hamstring, tricep.	compare and group magnetic materials two poles	name types of rock- metamorphic igneous sedimentary Fossils formation within rocks Soil made from rocks and organic matter	Investigate things that absorb sound Use of tuning forks Volume of sounds, feinter sounds Distance from a sound source	What plants needs to grow Photosynthesis How water is transported in plants Pollination, seed dispersal and life cycle of a plant	
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Years 5 & 6 2023 -2024 (Cycle A Rolling Programme)

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
Light and Shadows How light travels (building on Year 3.4) Objects reflect light Light sources How shadows change over the course of the day Structure of the eye in detail How we see colour	Living Things and Their Habitats How plants reproduce life cycle insects- metamorphosis similarities differences if life cycle -Duck and Frog (built on local area animals)	Forces Friction Earth and force of gravity air resistance water resistance Levers, gears and pulleys	Earth and Space Movement of earth movement of moon relative to earth spherical bodies rotation- day and night	Electricity Brightness or volume associated with voltage Voltage of cells in a circuit High voltage battery, not overloading a circuit adding dimmer switches. Used symbols when representing a circuit in a diagram	Animals inc. Humans stages of human development babies grow and develop(graphs and tables) puberty Gestation of different animals Lifespan of mammals Physical change changes as humans develop to old age.

Years 5 & 6 2024 -2025 (Cycle B Rolling Programme)

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
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<p>Properties and Changes of Materials</p> <p>group every day materials (wood, metals, plastic, rubber, glass) in relation to hardness</p> <p>Solubility</p> <p>transparency</p> <p>conductivity</p> <p>response to magnets</p> <p>Use of everyday materials</p> <p>comparative and fair testing of materials</p>	<p>Properties and Changes of Materials</p> <p>Reversible and irreversible changes</p> <p>Dissolving liquids to form a solution</p> <p>recurring a substance</p> <p>Liquids solids and gases to decide mixture separation</p> <p>Filtering, sieving and evaporation</p>	<p>Living Things and Their Habitats</p> <p>Classification of living things into broad groups linked to observably characteristics</p> <p>Reasons given for classification</p> <p>birds, fish, reptiles</p>	<p>Evolution and Inheritance</p> <p>changed over time of living things</p> <p>fossils provide information about living things</p> <p>Living things produce offspring similar not identical to parents</p> <p>Animals adaptations to environments- Moths and butterflies</p> <p>Charles Darwin</p> <p>Biomes</p> <p>DNA</p>	<p>Animals including humans</p> <p>Heart, blood vessels, exercise, diet, circulatory system</p> <p>Water and nutrient transportation in human body</p>
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