



Churchside Federation Long Term Planning

Subject: Science (Mundford) 2022-2023



Year Group	Impact Aut 1	Impact Aut 2	Change Spr 1	Change Spr 2	Community Sum 1	Community Sum 2
Oak YR	Understanding the World The Natural World: Children will explore the natural world around them, making observations and drawing pictures of animals and plants. Children will understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.					
Hazel Y1	Animals – naming (herbivore/carnivore) comparing (human body) WS: identifying and classifying	Animals – identify common animals WS: Ask simple questions and recognising that they can be answered in different ways	Everyday materials: identify and name a variety of materials	Materials Comparing WS: identifying and classifying. Perform simple tests. Gathering and recording data to help in answering questions.	Plants: trees/ wild/ garden WS: observing closely, using simple equipment	Seasonal Changes WS: observing closely, using simple equipment. Using observations and ideas to suggest answers to questions.
Maple Y2	Plants – bulbs WS: identifying and classifying	Materials- identify WS: asking simple questions and recognising that they can be answered in different ways using their observations and	Seasonal changes WS: observing closely, using simple equipment	Animals- Offspring -lifecycle Incubator - Ducks	Animals- basic needs & habitats	Materials - Comparing WS:performing simple tests



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		ideas to suggest answers to questions				
		gathering and recording data to help in answering questions				
Cedar Y3	<p>Animals including humans Identify that animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get their nutrition from what they eat.</p> <p>Know how nutrients, water and oxygen are transported within animals and humans.</p> <p>Know about the importance of a nutritious, balanced diet. Identify that humans and some other animals have skeletons and muscles for support, protection and movement:</p>	<p>Working scientifically:</p> <p>Sc21 Make measurements using standard units</p> <p>Sc22 Discuss and describe findings</p> <p>Sc23 Communicate findings using simple scientific language in written explanations, drawings, labelled diagrams, keys, bar charts or tables Sc24 Use results to draw simple conclusions</p>	<p>Y3 - Forces and magnets</p> <p>- Compare how things move on different surfaces.</p> <p>Know how a simple pulley works and use making lifting an object simpler</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</p> <p>Observe how magnets attract and repel each other and attract some materials and not others. Compare and group together a variety of everyday materials based on whether they are attracted to a magnet and identify some magnetic materials. Describe magnets as having two poles.</p> <p>Predict whether two magnets with attract or repel each other, depending on which poles are facing.</p>	<p>Light & sight -</p> <p>Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces.</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p> <p>Recognise that shadows are formed when the light from a light source is blocked by a solid object.</p> <p>Find patterns in the way that the sizes of shadows change.</p> <p>Working scientifically:</p> <p>Sc15 Ask relevant questions</p> <p>Sc16 With help, set up and carry out simple practical enquiries, comparative and fair tests</p> <p>Sc17 Suggest what might happen in comparative and fair tests</p>	<p>Rocks - Compare and group together different kinds of rocks based on their appearance and simple physical properties</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>Recognise that soils are made from rocks and organic matter</p>	<p>Plants</p> <p>Identify and describe the functions of different parts of the flowering plant: roots, stem/trunk/leaves and flowers</p> <p>Explore the part flowers play in a flowering plants life cycle, including pollination, seed formation and seed dispersal</p> <p>Explain the requirements of plants for life and growth (air, light, water, nutrients from soil, room to grow) and how they vary between plants</p> <p>Know the way in which water is transported between plants</p> <p>Working scientifically:</p> <p>Sc18 Make careful observations and comparisons</p> <p>Sc19 Recognise what constitutes a fair test</p> <p>Sc20 Identify simple patterns, changes, similarities and differences</p>



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Rowan Y4	Electricity Circuits - Working Scientifically/observing patterns.	Animals including humans - The digestive system.	Living things and their habitats - Recognise that environments can change	States of matter - Working Scientifically - Observe and record change over time. Change of state/grouping materials.	Sound - Identify how sounds are made. *Link to DT musical instruments.	Living things and their habitats - Explore and use classification keys to help group, identify and name living things in the local and wider environment.
Elm Y5	Forces Plan & carry out science investigations; carry out a fair test, explaining why it is fair; begin to recognise and control variables; Record data using tables, bar and line graphs.	Living Things & their habitats Select information from provided sources; record date and results of increasing complexity using scientific diagrams and labels, classification keys, tables.	Properties of Materials Make predictions based on scientific knowledge; Identify trends and patterns and begin to offer explanations for these; Understand why observations & measurements need to be repeated; Provide written explanations of results, causal explanations and conclusions; use results to make predictions for further tests.	Changing Materials Make predictions based on scientific knowledge; Identify trends and patterns and begin to offer explanations for these; Understand why observations & measurements need to be repeated; Provide written explanations of results, causal explanations and conclusions; Use results to make predictions for further tests.	Animals, including humans Take measurements with a range of scientific equipment with increasing accuracy and precision; Record data using bar and line graphs.	Earth & Space Revisit any skills as necessary from previous units.
Year Six	Animals including humans Working scientifically- recording data and	Electricity Working scientifically- Planning different types of scientific	Living things and their habitats Reporting and presenting findings from enquiries	Evolution Working scientifically- identifying scientific evidence	Electricity (applying knowledge to a community). Taking measurements using	Light Planning different types of scientific enquiries to answer questions including



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	<p>results of increasing complexity.</p> <p>Taking measurements using a range of scientific equipment.</p> <p>Using test results to make predictions to set up further comparative tests.</p>	<p>enquiries to answer questions, including recognising and controlling variables.</p>	<p>including conclusions and causal relationships</p>	<p>that has been used to support or or refute ideas or arguments.</p>	<p>a range scientific equipment.</p>	<p>recognising and controlling variables.</p>
<p>Events:</p> <p>19/9/22: Recycle Week</p> <p>1/10/22: Black History Months</p> <p>4/9/22: World space week</p> <p>3/11/22: Outdoor Classroom Day</p> <p>5/12/22: Computer Science Week</p> <p>10/3/23: British Science Week</p> <p>25/3/23: Earth Hour</p> <p>22/4/23: Earth Day</p> <p>5/5/23: World Environment Day</p> <p>8/5/23: World Oceans Day</p> <p>20/6/23: Anniversary of 1st Moon Landing</p>			<p>Planning: Include ½ termly SAW days. Science can be blocked and taught over a few days/week or as part of your weekly timetable.</p> <p>Useful Sites:</p> <p>https://www.stem.org.uk/</p> <p>https://edu.rsc.org/primary-science/find-resources</p> <p>https://www.commonsense.org/education/top-picks/terrific-websites-for-science</p> <p>https://www.sciencedaily.com/news/top/science/</p>			