

Science Year group overview

	<u>Autumn Term 1</u>	<u>Autumn Term 2</u>	<u>Spring Term 1</u>	<u>Spring Term 2</u>	<u>Summer Term 1</u>	<u>Summer Term 2</u>
Early Years	As part of the Early Years Foundation Stage, learners have access to a range of materials daily through their continuous provision. Throughout the year they have opportunities to develop skills, ask questions and explore the natural world around them.					
Year 1	<ul style="list-style-type: none"> • When I was a baby • Name body parts and their purpose • Investigation – using the senses • Comparing similarities and differences • Keeping healthy • 	<ul style="list-style-type: none"> • Plants near our school 	<ul style="list-style-type: none"> • Sorting materials for puppets • Sorting materials (floating & sinking) • Mixing and changing materials • Making shadows 	<ul style="list-style-type: none"> • Seasonal change • Light and light sources • Telescopes • Shooting stars • Star constellations • 	<ul style="list-style-type: none"> • Growing <ul style="list-style-type: none"> • - Exploring seeds • - Class seed diary • - What do plants need to grow? • - My results • Pond life <ul style="list-style-type: none"> - Visit pond - Frog spawn - Review investigation • Growing/Pond life <ul style="list-style-type: none"> - Grouping plants - Alive or not? - Review of investigation • Caring for the environment <ul style="list-style-type: none"> - Walk around school - Research in their gardens • - Review investigation 	<ul style="list-style-type: none"> • What kind of animals live in rivers?
Year 2	<ul style="list-style-type: none"> • Healthy eating • Sorting and classifying materials 	<ul style="list-style-type: none"> • Identifying common plants and trees 	<ul style="list-style-type: none"> • Investigating materials • Which materials make the best wheels? 	Using resources available: <ul style="list-style-type: none"> • Example <ul style="list-style-type: none"> ○ <i>Local bee keeper</i> 	Is it Living? <ul style="list-style-type: none"> • Nature detective • Categorisation • Observational drawings 	

	<ul style="list-style-type: none"> • Use of materials on basis of properties • Changing the shapes of materials • Exercise 	<ul style="list-style-type: none"> • Labelling drawings of plants and trees 	<ul style="list-style-type: none"> • Which materials are waterproof • Test the vehicles 	<ul style="list-style-type: none"> ○ Honey tasting ○ Bee life cycle ○ Pollination ○ Make honey biscuits 	<p>•Human impact on the environment.</p> <p>Animal and Human Care</p> <ul style="list-style-type: none"> •Egg pet •Caring for creatures •Keeping the world healthy •Looking after ourselves <p>Life Stories</p> <ul style="list-style-type: none"> •Parent and young •Animal and human life stories. <p>Animal Families</p> <ul style="list-style-type: none"> •How are animals the same? <p>Habitats and Humans</p> <ul style="list-style-type: none"> •What is a habitat? •Human senses •Animal senses •What's in our air? 	
Year 3	<ul style="list-style-type: none"> • I wonder...? • Lighting up a bulb • Electrical conductors • Switches • Lighting up a picture • Concept map magnets • Magnetic materials • Static electricity 	<ul style="list-style-type: none"> • Germinating and growing • Testing bricks • Moving heavy objects 	<ul style="list-style-type: none"> • Pushes and pulls • 'Magically' make an object move • Friction • Measuring forces • Air resistance 	<ul style="list-style-type: none"> • <i>How the environment affects plants & animals</i> <ul style="list-style-type: none"> - Food that keeps us healthy - Open ended questions - Review investigation 	<ul style="list-style-type: none"> • What is a plant/animal? • Is it alive? • Intro to ant farm • <i>Investigation assessment – What do plants need?</i> • <i>Where does the water go?</i> • What are roots for? • <i>Habitats/Habitats in the school grounds</i> • Seed dispersal 	<ul style="list-style-type: none"> • <i>Investigating materials</i>

	<ul style="list-style-type: none"> Finding out about magnets 				<ul style="list-style-type: none"> Life cycle of an ant/butterfly Food chains 	
Year 4	<ul style="list-style-type: none"> I wonder...? Investigating materials How do we see? Shadows Reflection Challenges using mirrors Sounds are made when objects vibrate Seeing vibrations Feeling vibrations Vibrations from sound sources travel through medium Sound insulation Pitch and loudness Exploring refraction, reflection, colour 	<ul style="list-style-type: none"> Sail power 	<ul style="list-style-type: none"> Dissolving investigation Food value of chocolate bar How does the chocolate become fuel/energy for our bodies? Which sugar dissolves first? Should we continue to eat chocolate as far as our teeth are concerned? Changes occur when materials are heated or cooled* Temperature is a measure of hot and cold Heating solid materials can cause irreversible changes* 		<ul style="list-style-type: none"> Concept of living How do our bodies feel after exercise? The heart and pulse Science investigation – how exercise affects our bodies Organs of the body Skin, skeleton and muscles Jigsaw activity Digestive system Sorting food Healthy eating The Brown family Food labels Teeth Tooth decay Dental care Revisit science investigation Quiz 	<ul style="list-style-type: none"> Measuring air temperature Making and using temperature records
Year 5	<ul style="list-style-type: none"> Quiz (part1) Trainee Materials Scientists Key terms Classifying materials 	<ul style="list-style-type: none"> Catapult investigation 	<ul style="list-style-type: none"> Electrical circuits Forces Light Sound 		<ul style="list-style-type: none"> Plant search Plant classification Grow your own salad Life cycle of a plant Parts of a plant and functions 	<ul style="list-style-type: none"> Fossils and the Great Lakes

	<ul style="list-style-type: none"> • <i>Problem – sustainable carrier bags</i> • Dissolving • Separating insolubles • Evaporation • Recovering sugar • Evaporating perfumes • Solids, liquids, gases • Cornflour slime • Gases • <i>Keeping it cool</i> • Non-reversible changes • Big separation problem • Quiz (part 1 and 2) 				<ul style="list-style-type: none"> • <i>Pollination</i> • Investigation – germination • Seed dispersal • The dandelion seed • Parachute investigation • <i>Food chains</i> • Pond visit 	
Year 6	<ul style="list-style-type: none"> • <i>I wonder...?</i> • <i>Enough water</i> • <i>Investigating evaporation and condensation</i> • <i>Water cleaning</i> • Position of the Sun • Day and night • Earth's orbit • Moon's orbit • Role Play • Moon shapes 	<ul style="list-style-type: none"> • Opportunity for discrete Science revision according to need. 	<ul style="list-style-type: none"> • Biography in a Bag • <i>We are naturalists</i> • <i>Carl Linnaeus – optional</i> • <i>The Chimp report</i> • <i>Natural selection activity</i> • <i>Darwin's finches</i> • Telling the story – population graphs • Creating something new <ul style="list-style-type: none"> ○ Plants ○ Animals 			

	<ul style="list-style-type: none">• Relative sizes of planets• Gravity• Names of planets• Investigating insulation• Rocks and soils		<ul style="list-style-type: none">• What do we know about fossils• So, why do some creatures no longer exist?• Review of Learning• Presenting our learning			
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