



Science

Curriculum: Year A



Cherry Trees Science Curriculum

Class	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Red	<p><u>All About Me. Materials</u></p> <p>Exploring different materials – plastic, wood, metal, fabric etc.</p> <p>Exploring and identifying the properties of materials</p> <p>Sorting objects by their material</p> <p>Investigating changes to materials and which materials are best suited for different purposes</p>	<p><u>Autumn Explorers/ Winter Warmers</u></p> <p><u>Changes of State</u></p> <p>Melting and Freezing – changing state</p> <p>Change of state – experiencing melting – ice cube exploration (1) Investigation – how can we rescue the animals from the ice blocks? (2) Changing of state – experiencing freezing - make ice cream and describe it (3) Investigation – keeping an ice cube frozen –</p>	<p><u>To Infinity and Beyond</u></p> <p><u>Light and dark</u></p> <p>Sources of light Natural and manmade light Link to space topic - sun and stars as natural sources of light</p> <p>Describing surfaces – shiny / dull etc</p> <p>Shadows - how are shadows made? Making and exploring shadow puppets</p> <p>Reflection → Night safety</p> <p>Scientific enquiry focus: looking for naturally-occurring</p>	<p><u>Knight Fever</u></p> <p><u>Seasonal Change</u></p> <p>Observing and recording observations</p> <p>Take photos of nature outside at beginning and end of half-term for comparison – trees, plants</p> <p>Changes to plants / trees (leaves, blossom) Changes in the weather</p> <p>Seasonal animals (lambs, hedgehogs)</p> <p>Scientific enquiry focus: Comparative</p>	<p><u>Pirates</u></p> <p><u>Sound</u></p> <p>1. Exploring sounds - loud, quiet, high low with instruments</p> <p>2. Make their own instrument - identifying sounds</p> <p>3. Learn about the ear and vibration</p> <p>4. Important sounds in the environment.</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>Summer Holidays</u></p> <p><u>Plants</u></p> <p>Explore different plants</p> <p>Explore local environment looking for different plants</p> <p>Make a flower image</p> <p>Label flower parts using Interactive games.</p> <p>Plant and care for a plant</p> <p>Observe changes of cress – what has happened?</p>



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	<p>Scientific enquiry focus: identifying and classifying</p> <p>Equals: Science Everyday materials 1 Unit title: Sorting and using materials (KS1)</p>	<p>where should it go? What happens? (4) Melting other things – chocolate, making Christmas chocolates (5)</p> <p>Scientific enquiry focus: Observing changes over time</p>	<p>patterns and relationships</p> <p>Science Seasonal changes 1 Unit title: Light and dark (KS1)</p>	<p>Science Seasonal changes 2 Unit title: Keeping Warm (KS1)</p>		<p>Scientific enquiry focus: Early stage of fair testing</p> <p>Equals: Science Plants 2 Unit title: Helping plants grow well (KS1) Equals: Science Animals, including humans 3 Unit title: Variation and comparison with plants (KS1)</p>
<p>Blue (Early Years)</p>	<p><u>Nursery Rhymes</u></p> <p>Visit the school farm Look at the habitat of farm animals</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>Winter Wonderland</u></p> <p>Seasonal changes Arctic animals</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>Bucket full of Dinosaurs</u></p> <p>Becoming an archaeologist</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>'Tickets Please' Transport</u></p> <p>Looking at how forces work – push and pull.</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>Food Glorious Food</u></p> <p>Food tasting Sensory cooking sessions</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>Down in the Jungle</u></p> <p>Looking at the different habitats of jungle animals</p> <p>Scientific enquiry focus: Identifying and classifying</p>



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Class	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Green	<p><u>Frozen Planet</u></p> <p><u>Forces/ Magnets</u> Acting forces Magnetic attraction Poles apart Magnetic fun time All the fun of the fair! Use simple scientific vocabulary eg: describing movement</p> <p>Make suggestions how to push and pull To demonstrate push and pull</p> <p>To know about forces and attraction between magnets and</p>	<p><u>Journeys</u></p> <p><u>Sound</u> Link to Christmas production, singing signing and dancing</p> <p>Can we make/ change the sound?</p> <p>Locate the sound source Listening walk</p> <p>Create a sound/ making instruments from natural materials</p> <p>Scientific enquiry focus: Comparative</p> <p>Science Sound 1</p>	<p><u>Meet the Artists</u></p> <p><u>Animals</u> Animals and their homes.</p> <p>Revisit Dead and alive Revisit local habitats</p> <p>Explore different habitats desert/ Antarctic/ jungle.</p> <p>Scientific enquiry focus: Identifying and classifying</p> <p>Equals: Science Animals, including humans 1 Unit title: Plants and animals in the local environment (KS2) Science</p>	<p><u>Amazing Animals</u></p> <p><u>Rocks and Soils</u> Science unit-3D observing, grouping, drawing, describing and naming rock samples</p> <p>Discover how different rocks were made by Earth. Design your own fair test for rocks to check their hardness and permeability. Use a rock identification key to learn which type of rock our samples are Learn just how important it is to life on our planet</p>	<p><u>Terrific Time Travellers</u></p> <p><u>Lights and Shadows</u> Investigate what we need to see objects in a dark place and discover how light travels. Design a stage for a shadow puppet and discover how the light we see is really made of a spectrum of colours. What's it like to see in a very dark place? Go into a dark "cave" and observe which colours show up best and which do not. Shine a torch to reveal reflectors and high visibility items. Discover</p>	<p><u>Colour, Shimmer & Shine</u></p> <p><u>Moving and Growing</u> Science unit-4A -</p> <p>How many portions of fruit and vegetables the team eat each day and how much sugar is in their daily diet. The effects of too much sugar and not enough nutrients.</p> <p>Make a skeleton string puppet that has moving joints naming bones on the puppets or writing an explanatory script Puppeteer a skeleton dance</p>



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	<p>magnetic materials</p> <p>To know about friction, including air resistance as a force that slows moving objects and prevents them from moving.</p> <p>Scientific enquiry focus: Comparative and fair testing</p> <p>Science Forces 1 Unit title: Pushes and pulls (KS2)</p> <p>Science Forces and magnets 1 Unit title: Forces and motion (Key Stage 2)</p>	<p>Unit title: Sound and hearing (KS2)</p>	<p>Animals, including humans 2 Unit title: Living things and their environments (Key Stage 2)</p>	<p>Scientific enquiry focus: Researching using secondary sources</p> <p>Science Rocks Unit title: Rocks and soils (KS2)</p> <p>Science Earth and space Unit title: The Earth and beyond (Key Stage 2)</p>	<p>what happens to writing in a mirror and how this can be used to write in secret code. Conduct a fair test between the distance of the torch and the size of the shadow.</p> <p>Scientific enquiry focus: Looking for naturally occurring patterns and relationships</p> <p>Science Light Unit title: Light and shadow (KS2)</p>	<p>Investigate how muscles work in pairs (biceps & triceps) using a bottle of water as a weight</p> <p>Scientific enquiry focus: Observing changes over time</p> <p>Science Animals, including humans 1 Unit title: Plants and animals in the local environment (KS2)</p>
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	<u>Roald Dahl</u>	<u>We are Britain</u>	<u>Victorians (Local Study)</u>	<u>Scientists and Inventors</u>	<u>Superheroes</u>	<u>What do you Sea?</u>
Purple	<p><u>Digestive System</u> Digestive system parts Functions Types and functions of teeth Tooth Decay Enquiry Part 1 Tooth Decay Enquiry Part 2 Digestive system parts</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>Electricity</u> Circuits circuit symbols volts where electricity comes from Electricity investigation</p> <p>Scientific enquiry focus: Comparative and fair testing</p> <p>Science Electricity Unit title: Using electricity (KS2)</p>	<p><u>Space</u> Spherical Bodies The Planets Night and Day Movement of the Moon</p> <p>Scientific enquiry focus: Researching from secondary source</p> <p>Science Earth and space Unit title: The Earth and beyond (Key Stage 2)</p>	<p><u>Evolution and Inheritance</u> Inheritance characteristic and sort</p> <p>Adaption how animals adapt to their world Human timeline</p> <p>Charles Darwin</p> <p>Scientific enquiry focus: Observations over time</p>	<p><u>Living things</u> Recognise that living things can be grouped in a variety of ways Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Recognise that environments can change and that this can sometimes pose dangers to living things</p> <p>Scientific enquiry focus: identifying and classifying</p>	<p><u>Diet and lifestyle</u> Healthy diet Fitness Exercise Circulatory system Heart Blood</p> <p>Scientific enquiry focus: Looking for naturally occurring patterns</p> <p>Science Animals, including humans 1 Unit title: Plants and animals in the local environment (KS2)</p>



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					Science Animals, including humans 3 Unit title: Variation and classification (Key Stage 2)	
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Science

Curriculum: Year B



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Class	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Blue (Early Years)	<u>Nursery Rhymes</u> Visit the school farm Look at the habitat of farm animals Scientific enquiry focus: Identifying and classifying	<u>Winter Wonderland</u> Seasonal changes Artic animals Scientific enquiry focus: Identifying and classifying	<u>Bucket full of Dinosaurs</u> Becoming an archaeologist Scientific enquiry focus: Identifying and classifying	<u>'Tickets Please' Transport</u> Looking at how forces work – push and pull. Scientific enquiry focus: Identifying and classifying	<u>Food Glorious Food</u> Food tasting Sensory cooking sessions Scientific enquiry focus: Identifying and classifying	<u>Down in the Jungle</u> Looking at the different habitats of jungle animals Scientific enquiry focus: Identifying and classifying
Red	<u>Change in Living Memory/Beyond Living Memory</u> <u>Ourselves</u> Body parts, Health and growth and senses. Heads Shoulder Knees and Toes Labelling body parts Putting body images together	<u>Land of Rhyme</u> <u>Electricity</u> Sources of electricity Sorting objects that do / don't use electricity Dangers of electricity Building simple circuits Scientific enquiry focus:	<u>Carnival Animals</u> <u>Animals including humans</u> Identifying different animals Sorting / classifying animals Handling an animal with care – looking after and	<u>Weather Experts</u> <u>Forces and Motion</u> Explore push pull practically Observe force in action Observe and practically explore different forces – twist, poke, pinch as a pull/push	<u>Local Area Study - Canals</u> <u>Living Things and Habitats</u> Children to explore different Habitats Small world sensory play Community Visits – Park, Woodlands (Conkers) Children to explore	<u>Oceans and Seas</u> <u>Super Science</u> Children to carry out scientific observations, record simple findings and performing simple investigations. Scientific enquiry



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	<p>Learning about the skeleton Changes in the body over time. 5 senses Activities</p> <p>Scientific enquiry focus: Observing</p> <p>Equals: Science Animals, including humans 1 Unit title: Ourselves (KS1)</p> <p>Science Animals, including humans 4 Unit title: Moving and growing (KS1)</p>	<p>Identifying and classifying</p>	<p>caring for animals.</p> <p>Scientific enquiry focus: Identifying and classifying</p> <p>Equals: Science Animals, including humans 2 Unit title: Health and growth (KS1)</p>	<p>Explore ramps and surfaces. Explore materials and their effect on motion Friction</p> <p>Scientific enquiry focus: Comparative and fair testing (simple)</p>	<p>different animals from different habitats Why they choose the habitat – food source Habitat hunt at school</p> <p>Scientific enquiry focus: Looking for naturally occurring patterns and relationships</p>	<p>focus: Observing changes over time</p> <p>Comparative and fair testing</p>
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Class	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Green	<p><u>Happy Healthy Me</u></p> <p><u>Animals including Humans</u></p> <p>GMM experiment-foaming medicine</p> <p><u>Teeth and Eating</u></p> <p>Healthy eating-lotto game</p> <p>Healthy /unhealthy plates</p> <p>Skeleton</p> <p>Labelling body Senses</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>Victorian Wonderland</u></p> <p><u>Circuits and Conductors</u></p> <p>Electricity</p> <p>Every day electrical appliances</p> <p>Safety with electricity</p> <p>Mains or Batteries</p> <p>Making a circuit</p> <p>Scientific enquiry focus: Comparative and fair testing</p> <p>Science</p> <p>Electricity</p> <p>Unit title: Using electricity (KS2)</p>	<p><u>Let it Grow</u></p> <p><u>Plants</u></p> <p>Parts of plants</p> <p>What do plants need to grow</p> <p>Plant life cycle</p> <p>Chick life cycle</p> <p>Frog life cycle</p> <p>Human life cycle</p> <p><i>Been there grown that</i></p> <p><i>What plants need to grow</i></p> <p>Scientific enquiry focus: Observing changes over time</p> <p>Researching using secondary sources</p>	<p><u>Chocoholics</u></p> <p><u>States of Matter</u></p> <p>Solids and Liquids</p> <p>Investigations- How can we melt a chocolate bar?</p> <p>Chocolate stretchy slime.</p> <p>Wellies to Bellies garden.</p> <p>Scientific enquiry focus: Comparative and fair testing</p> <p>Science</p> <p>Properties and changes of materials 1</p>	<p><u>The Great Outdoors</u></p> <p><u>Characteristics of Materials 3 weeks</u></p> <p>Properties of materials</p> <p>Man-made and natural materials</p> <p>Everyday materials</p> <p><u>Lights and Shadows 2weeks</u></p> <p>Light and dark Shadows</p> <p>Scientific enquiry focus: Identifying and classifying</p>	<p><u>The Big Top</u></p> <p><u>Pushes and Pulls</u></p> <p>To notice that some forces need contact between two objects</p> <p>To identify the forces acting on objects.</p> <p>To compare how</p> <p>Sort magnetic and non-magnetic materials.</p> <p>To investigate the strength of magnets.</p> <p>To observe how magnets attract or repel</p> <p>Observe how magnets</p>



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	<p>Equals: Science Everyday materials 2 Unit title: Teeth and eating (KS1)</p>		<p>Science Plants 1 Unit title: Green plants (Key Stage 2)</p>	<p>Unit title: Grouping and classifying materials and their properties (Key Stage 2)</p>	<p>Science Everyday materials 1 Unit title: Characteristics of materials (KS2)</p>	<p>attract some materials. Scientific enquiry focus: Looking for naturally occurring patterns and relationships Science Forces 1 Unit title: Pushes and pulls (KS2)</p>
<p>Purple</p>	<p><u>Egyptians</u> <u>Properties and Changing Materials</u> States of matter Solid Liquid Gas change state Conduction of materials Scientific enquiry focus: Looking for naturally occurring</p>	<p><u>World War 1 and 2</u> <u>Light</u> Understand light and dark Reflection Reflection with mirrors Shadows – changing shadows Light protection - sun Scientific enquiry focus: Researching</p>	<p><u>Famous for more than 5 minutes.</u> <u>Growing</u> Parts of plants What do plants need to grow Recording information changes Life cycle of plants How plants need water Scientific enquiry focus: Observing</p>	<p><u>Geographical Skills</u> <u>Experiments linked to Scientists</u> Invention of telephone Oxygen test Temperature and using thermometers Scientific enquiry focus: Observing changes over time</p>	<p><u>Crime and Punishment</u> <u>Forces</u> Balanced forces Force push and pull Investigate air and water resistance Investigate friction and mechanisms Scientific enquiry focus: Comparative and fair testing</p>	<p><u>Sports Tournaments</u> <u>Living things and Habitats</u> Grouping of living things Classifying Vertebrates Invertebrate Hunt Classification Keys 4 Local habitats and environments</p>



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	<p>patterns and relations</p> <p>Science Everyday materials 2 Unit title: Grouping and changing materials (KS2)</p> <p>Science Properties and changes of materials 3 Unit title: Grouping and classifying materials and their properties (Key Stage 2)</p>	<p>using a secondary source</p> <p>Science Light and sound Unit title: Light and sound (Key Stage 2)</p>	<p>changes over time</p> <p>Science Animals, including humans 1 Unit title: Plants and animals in the local environment (KS2)</p>		<p>Science Forces 2 Unit title: Forces and movement (KS2)</p> <p>Science Forces and magnets 2 Unit title: Electricity and magnetism (Key Stage 2)</p>	<p>Scientific enquiry focus: Identifying and classifying</p> <p>Science Animals, including humans 3 Unit title: Variation and classification (Key Stage 2)</p>
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Green - The Equals unit of work to compliment the teaching of the science topic for that term.

Red – The area of scientific enquiry to cover