





## Science Curriculum FHC

*"Science and everyday life cannot and should not be separated." – Rosalind Franklin*

*"There is no such thing as a stupid question" – Carl Sagan*

<b>Curriculum Intent</b>	
<p>The Science Curriculum at FHC has been designed to provide students with a deep understanding of scientific knowledge and give them the foundations they need to recognise the importance of Science in day to day life. As our children progress through their school life, they will be increasingly made to provide insight into working scientifically and develop their curiosity about natural phenomena. The children will be given the chances to apply their knowledge using equipment, building arguments and explaining concepts.</p>	
<b>Purpose of Study</b>	
<p><b>Understanding the world we live in</b></p> 	<p>We want our Science curriculum to give our children a greater understanding of the world we live in, providing a foundation for understanding the world through the precise disciplines of biology, chemistry and physics. Science is vital to the world's future prosperity, thus all pupils should be taught essential aspect of knowledge, methods, processes and uses of Science. Scientific enquiries will be used to give our children the opportunity to answer scientific questions about the world around them and develop an understanding of the nature, processes and methods of Science. Our curriculum commences closer to home with pupils exploring their environment and making links about the natural world. As pupils move through school, they will look at more complex focuses.</p>
<p><b>Linked to my life</b></p> 	<p>We strive for our Science curriculum to excite our children about the world around them and provoke questions asking why and how. Science has already changes our lives immeasurably and will continue to do so in our children's lives. Therefore all of our pupils will be taught essential aspects of the knowledge, methods, processes, uses and implications of Science, today and for the future.</p>
<p><b>Practical Skills</b></p> 	<p>Through our curriculum, we want children to experience a range of practical experiments and investigations to bring our science focuses to life. Using a wide range of equipment, all children will get the chance to complete full scientific enquiries following correct procedures, including predictions, evaluations and conclusions.</p>
<p><b>Knowledge</b></p> 	<p>The Science progression document at FHC sets out the progression of skills from EYFS to Year 6 and through this the children will build their knowledge through the specific disciplines of Science: biology, chemistry and physics. While progress is important, it is also imperative that our pupils develop an understanding of each block of learning in order to progress to the next stage. Children will use their mathematical knowledge within their understanding of Science, through collecting, presenting and analysing data.</p>

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## Assessment and recording for long term knowledge retention:

Entry task: Start of learning assessments created for each block of learning, before knowledge organiser is entered into books.

Exit task: End of learning assessments created for each block of learning.

Summary of Progression							
FS1	FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Working Scientifically</b>							
<ul style="list-style-type: none"> <li>• Encourage children to ask questions</li> <li>• Talk about what they see using a wide vocabulary</li> <li>• Observe and explore the environment</li> <li>• Explore how things work.</li> </ul> <p><b>Open ended questions for adults to ask:</b></p> <ul style="list-style-type: none"> <li>• What can you see? • What can you hear?</li> <li>• What can you smell?</li> <li>• I wonder...?</li> <li>• What would happen if...? • Why did that happen?</li> </ul>	<ul style="list-style-type: none"> <li>• Ask questions to find out more, and to check they understand what has been said to them</li> <li>• Talk about what they see using a wide vocabulary.</li> <li>• Children to answer who, where and when questions first before answering 'why' and 'I wonder/how do you know' questions.</li> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Explore the natural world around them</li> <li>• Connect one</li> </ul>	<ul style="list-style-type: none"> <li>• Ask simple questions linked to the science work we are doing.</li> <li>• Observe changes and patterns closely and describe what I see.</li> <li>• Perform simple tests, using familiar, everyday equipment.</li> <li>• Set up a simple comparative test (e.g. growing plants in different conditions).</li> <li>• Gather and record information to help answer questions (including using photographs and drawings).</li> </ul>	<ul style="list-style-type: none"> <li>• Ask simple questions and recognise that they can be answered in different ways.</li> <li>• Observe changes and patterns closely, using given measuring equipment.</li> <li>• Perform simple tests without support.</li> <li>• Identify and classify.</li> <li>• Use my observations and ideas to suggest answers to questions.</li> <li>• Gather and record accurate data to help in answering questions (incl. numerical data,</li> </ul>	<ul style="list-style-type: none"> <li>• Ask relevant scientific questions and suggest a scientific way of answering them.</li> <li>• Setup, with guidance, simple practical enquiries, comparative and fair tests.</li> <li>• Make careful observations and take accurate measurements using standard units.</li> <li>• Gather, record, classify and present data in a variety of ways to help answer questions.</li> <li>• Record findings using simple scientific language, drawings, labelled</li> </ul>	<ul style="list-style-type: none"> <li>• Ask relevant questions and use different types of scientific enquiries to answer them.</li> <li>• Set up simple practical enquiries, comparative and fair tests independently.</li> <li>• Make systematic and careful observations and take accurate measurements using standard units, and use a range of equipment, including thermometers and data loggers.</li> <li>• Report on findings, including oral and written explanations, displays or</li> </ul>	<ul style="list-style-type: none"> <li>• Work as part of a team to plan enquiries to answer questions, including recognising and controlling variables.</li> <li>• Take measurements, using a range of equipment, with precision, taking repeat readings when appropriate.</li> <li>• Record data and results using scientific diagrams and labels, classification keys, tables, bar and line graphs.</li> <li>• Use test results to make predictions to set up further comparative and fair tests.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan more sophisticated scientific enquiries to answer questions, including recognising and controlling variables.</li> <li>• Justify my choices of data collection method and number of observations and measurements.</li> <li>• Choose the most appropriate method to record data and results of increasing complexity.</li> <li>• Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>

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	<p>idea or action to another</p> <p><b>Open ended questions for adults to ask:</b></p> <ul style="list-style-type: none"> <li>•What can you see?</li> <li>•What can you hear?</li> <li>•What can you smell?</li> <li>•I wonder...?</li> <li>•What would happen if...?</li> <li>•Why did that happen?</li> </ul>		<p>where appropriate).</p>	<p>diagrams, keys, bar charts and tables.</p> <ul style="list-style-type: none"> <li>• Use results to draw simple conclusions and make predictions for new values.</li> <li>• Use straightforward scientific evidence to answer questions or to support my findings.</li> </ul>	<p>presentations of results and conclusions.</p> <ul style="list-style-type: none"> <li>• Use results to suggest improvements to enquiries and to raise questions.</li> <li>• Identify differences, similarities or changes related to simple scientific ideas and processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Report and present findings, including conclusions, causal relationships and degree of trust, in oral and written forms.</li> </ul>	
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<b>Living Things (Animals, Humans and Plants)</b>							
<p><b>Plants and Animals</b></p> <ul style="list-style-type: none"> <li>Plant seeds and care for growing plants</li> <li>Understand key features of a life cycle of a plant and an animal &gt; one life cycle simple e.g. chick</li> <li>Begin to understand the need to respect and care for the natural environment and all living things.</li> </ul>	<p><b>Plants and Animals</b></p> <ul style="list-style-type: none"> <li>Describes what they see, hear and feel outside</li> <li>Explore the natural world around them</li> <li>Develop an understanding of growth, decay and changes over time &gt; life cycles (caterpillar).</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name a variety of plants and animals, identify their parts and describe their basic structure.</li> <li>Know and classify animals by what they eat (carnivore, herbivore and omnivore).</li> <li>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li> <li>Identify and name a variety of common plants (wild and garden), including deciduous and evergreen trees.</li> <li>Identify and describe the basic structure of a variety of common</li> </ul>	<ul style="list-style-type: none"> <li>Notice that animals, including humans, have offspring which grow into adults.</li> <li>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</li> <li>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> <li>Explore and compare the differences between things that are living or dead.</li> <li>Understand habitats and how they provide basic needs of plants,</li> </ul>	<ul style="list-style-type: none"> <li>Identify that all animals need the right types and amount of nutrition.</li> <li>Understand that they cannot make their own food.</li> <li>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li> <li>Identify and describe the functions of different parts of flowering plants, including the roots, stem/trunk, leaves and flowers.</li> <li>Explore the requirements of plants for life and growth (air, light, water, nutrients</li> </ul>	<ul style="list-style-type: none"> <li>Recognise that living things can be grouped in a variety of ways, using classification keys to help identify and name living things in their local and wider environment.</li> <li>Recognise that environments can change and that this can sometimes pose dangers to living things.</li> <li>Describe the simple functions of the basic parts of the digestive system in humans.</li> <li>Describe the simple functions of the basic parts of the digestive system and teeth in humans.</li> <li>Construct and</li> </ul>	<ul style="list-style-type: none"> <li>Describe the differences in the life cycles of plants, mammals, amphibians, insects and birds and understand their reproductive processes.</li> <li>Raise questions about the environment and study the work of naturalists and animals behaviourists.</li> <li>Describe the changes as humans develop to old age.</li> </ul>	<ul style="list-style-type: none"> <li>Give reasons for classifying plants and animals based on specific characteristics.</li> <li>Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.</li> <li>Identify the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</li> <li>Learn how to keep their bodies healthy and how</li> </ul>

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		<p>flowering plants, including trees.</p>	<p>animals and humans (including food chains).</p> <ul style="list-style-type: none"> <li>• Understand lifecycles of plants, animals and humans.</li> <li>• Observe and describe how seeds and bulbs grow into mature plants.</li> <li>• Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> </ul>	<p>from soil and room to grow) and how they vary in different plants.</p> <ul style="list-style-type: none"> <li>• Investigate the way in which water is transported in within plants.</li> <li>• Explore the part that flowers play in the life-cycle of flowering plants.</li> </ul> <p><b><u>Scientists and Inventors</u></b></p> <ul style="list-style-type: none"> <li>• Explore the part that flowers play in the life-cycle of flowering plants.</li> </ul>	<p>interpret a variety of food chains, identifying producers, predators and prey.</p>		<p>their bodies might be damaged (lifestyle choices including diet, exercise and drugs).</p> <ul style="list-style-type: none"> <li>• Describe how nutrients and water is transported within animals, including humans.</li> <li>• Explore the work of scientists, such as Carl Linnaeus, a pioneer of classification.</li> </ul>
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Materials							
<ul style="list-style-type: none"> <li>• Use all their senses in hands in exploration of natural materials.</li> <li>• Explore collection of materials with similar and/or different properties.</li> <li>• Talk about what they see using a wide vocabulary.</li> <li>• Talk about differences between materials and changes they notice.</li> </ul>	<ul style="list-style-type: none"> <li>• Observe and interact with natural processes such as ice melting</li> <li>• Explore different materials.</li> <li>• Look closely at similarities, differences, patterns and change in materials.</li> </ul>	<p><b><u>Everyday Materials</u></b></p> <ul style="list-style-type: none"> <li>• Distinguish between an object and the material from which it is made.</li> <li>• Identify, name and compare a variety of everyday materials and describe their properties.</li> <li>• Compare and group a variety of everyday materials on the basis of their simple properties.</li> </ul>	<p><b><u>Use of Everyday Materials</u></b></p> <ul style="list-style-type: none"> <li>• Identify and compare the suitability of a variety of everyday materials for different purposes.</li> <li>• Find out how the shapes of solid objects made from some materials can be changed (by squashing, bending, twisting and stretching).</li> </ul>	<p><b><u>Rocks</u></b></p> <ul style="list-style-type: none"> <li>• Compare and group together different kinds of rocks, based on their appearance, and simple physical properties.</li> <li>• Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</li> <li>• Recognise that soils are made from rocks and organic matter.</li> </ul>	<p><b><u>States of Matter</u></b></p> <ul style="list-style-type: none"> <li>• Explore a variety of everyday materials and develop simple descriptions of the states of matter.</li> <li>• Compare and group materials together, according to whether they are solids, liquids or gases.</li> <li>• Observe that some materials change state when they are heated or cooled and measure the temperatures at which this happens in degrees Celsius (°C).</li> <li>• Identify the part played by evaporation and condensation in the water cycle and explore the</li> </ul>	<p><b><u>Properties and Changes of Materials</u></b></p> <ul style="list-style-type: none"> <li>• Understand comparative and fair tests.</li> <li>• Compare and group together everyday materials on the basis of their properties.</li> <li>• Know that some materials will dissolve in liquid.</li> <li>• Decide how mixtures might be separated and understand the difference between reversible and irreversible changes.</li> <li>• Demonstrate that dissolving, mixing and changes of state are reversible changes.</li> </ul>	<p><b><u>Cross-curricular from our Craft Curriculum.</u></b></p> <ul style="list-style-type: none"> <li>• Select from and use a wider range of materials or components including construction materials, textiles and ingredients according to their functional properties and aesthetic qualities.</li> </ul>

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					link between evaporation and temperature.	<ul style="list-style-type: none"><li>• Explain that some changes result in the formation of new materials and this change is usually irreversible.</li></ul>	
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<b>Light and Sound</b>							
<p><b>Cross-curricular from our Craft Curriculum.</b></p> <ul style="list-style-type: none"> <li>To show skill in making toys work by pressing parts of lifting flaps to achieve effects such as sound, movement or new images.</li> </ul>				<ul style="list-style-type: none"> <li>Recognise the need light in order to see things, and that darkness is the absence of light.</li> <li>Notice that light is reflected from surfaces.</li> <li>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Notice that light is reflected from surfaces.</li> <li>Recognise that shadows are formed when the light from a light source is blocked by an opaque object.</li> <li>Find patterns in the way that the size of shadows change.</li> </ul>	<ul style="list-style-type: none"> <li>Identify how sounds are made, associating some of them with something vibrating and these vibrations travel through a medium to the ear.</li> <li>Understand how pitch and volume of a sound can be changed.</li> <li>Recognise that sounds get fainter as the distance from the sound source increases.</li> </ul>		<ul style="list-style-type: none"> <li>Recognise that light appears to travel in straight lines.</li> <li>Explain that objects are seen because they give out or reflect light into the eye and explain why shadows have the same shape as the objects that cast them.</li> <li>Work scientifically by investigating a range of phenomena involving light (including rainbows, colours on soap bubbles and coloured filters).</li> </ul>





<b>Forces</b>							
<ul style="list-style-type: none"> <li>• Explore and talk about the difference forces they can feel.</li> </ul>				<ul style="list-style-type: none"> <li>• Compare how things move on different surfaces.</li> <li>• Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</li> <li>• Observe and predict how magnets have poles that attract or repel each other and attract some materials and not others.</li> <li>• Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet.</li> </ul>		<ul style="list-style-type: none"> <li>• Explain that unsupported objects fall towards the Earth because of the force of gravity acting upon the object</li> <li>• Identify and explore the effects of air resistance, water resistance and friction.</li> <li>• Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> <li>• Explore the work of how Galileo Galilei and Isaac Newton helped develop the theory of gravitation.</li> </ul>	<p><b>Cross-curricular from our Craft Curriculum.</b></p> <ul style="list-style-type: none"> <li>• Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) with an understanding of the effects forces have, in context.</li> </ul>



<b>Earth and Space</b>							
		<p><b><u>Seasonal Changes</u></b></p> <ul style="list-style-type: none"> <li>• Observe changes across the 4 seasons.</li> <li>• Observe and describe weather associated with the season and how day length varies.</li> </ul>				<ul style="list-style-type: none"> <li>• Describe and understand our solar system.</li> <li>• Describe the movement of the Earth and other planets relative to the sun.</li> <li>• Describe the movement of the Moon relative to the Earth.</li> <li>• Describe the sun, Earth and moon as approximately spherical bodies.</li> <li>• Use the idea of the Earth’s rotation to explain day and night.</li> </ul>	<p><b><u>Evolution and Inheritance</u></b></p> <ul style="list-style-type: none"> <li>• Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</li> <li>• Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</li> <li>• Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li> </ul>

<b>Electricity</b>							
					<ul style="list-style-type: none"> <li>• Identify common appliances that run on electricity.</li> <li>• Draw, construct and use simple circuits, naming its basic parts.</li> <li>• Identify whether or not a lamp will light in a simple circuit.</li> <li>• Recognise that a switch opens and closes a circuit.</li> <li>• Recognise some common conductors and insulators, and associate metals with being good conductors.</li> </ul> <p><b>Cross-curricular from our Craft Curriculum.</b></p> <ul style="list-style-type: none"> <li>• Understand and use electrical systems in their products (for</li> </ul>		<ul style="list-style-type: none"> <li>• Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</li> <li>• Compare and give reasons for variations in how components function.</li> <li>• Construct and adapt simple series circuits and answer question about the changes.</li> <li>• Represent a circuit in a diagram using recognised symbols.</li> </ul>



					example series circuits incorporating switches, bulbs, buzzers and motors.		
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## Progression of Vocabulary

<b>Year 1</b>	
<b>Unit</b>	<b>Vocabulary</b>
Living Things (Animals, Humans and Plants)	plants, wild, garden, deciduous, blossom, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud, evergreen, structure, flowering, trees, vegetables, leaves, flowers, blossom, petals, animals, fish, amphibians, reptiles, birds, mammals, carnivores, herbivores, omnivores, compare, label, human body, sense, classification, structure, features, head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, senses, touch, see, smell, taste, hear
Earth and Space (Seasonal Changes)	Earth, sun, moon, planet, space, star. Weather (sunny, rainy, windy, snowy etc.) Seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length
Materials	object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card, rubber, wool, clay, properties, compare, group, physical, hard, soft, stretchy,



	stiff, shiny, dull, rough, smooth, bendy, waterproof, opaque transparent, absorbent
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<b>Year 2</b>	
<b>Unit</b>	<b>Vocabulary</b>
Living Things (Animals, Humans and Plants)	living, dead, never been alive, suited, suitable, basic needs, food chain, shelter, move, feed, animals, observe, local habitats, micro-habitats, plants, light, shade, sun, warm, cool, water, grow, healthy, temperature, seed, bulb, root, petal, stem, offspring, reproduction, growth, child, young/old stages, exercise, heartbeat, breathing, hygiene, germs, disease, food types, opaque, transparent and translucent, reflective, non-reflective, flexible, rigid, shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching, identify, compare, suitability, wood, metal, plastic, glass, brick, rock, paper, cardboard, shapes, objects, solid, squashing, bending, twisting, stretching
Materials (Use of everyday Materials)	identify, compare, suitability, wood, metal, plastic, glass, brick, rock, paper, cardboard, shapes, objects, solid, squashing, bending, twisting, stretching



<b>Year 3</b>	
<b>Unit</b>	<b>Vocabulary</b>
Living Things (Animals, Humans and Plants)	nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, move, skull, ribs, spine, muscles, joints, human, food, animals, photosynthesis, pollen, insect/wind pollination, seed formation, seed dispersal, wind dispersal, animal dispersal, water dispersal, roots, stem/trunk, leaves, flowers, plants, growth, air, light, water, nutrients, soil, transported, life cycle, nutrition, stigma, anther, filament, style
Materials (Rocks)	compare, group, rocks, pebble, grain, layers, locality, physical, properties, soils, peat, sandy/chalk/clay soil, hard, soft, marble, chalk, granite, slate, sandstone, texture, absorb water, fossil, formed, appearance, organic, matter, durable, texture, magma, fossilization, decompose
Forces and Magnets	force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole, compare, surfaces, friction



Light and Sound	light, light source, dark, reflect, pattern, artificial, natural, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous
<b>Year 4</b>	
<b>Unit</b>	<b>Vocabulary</b>
Living Things (Animals, Humans and Plants)	classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate, locality, identify, local, dangers, living things, function digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain, chewing, crushing, grinding, tearing, biting, ripping, producers, predators, prey, enzymes, hygiene
Materials (States of Matter)	solid, liquid, gas, state change, melting, freezing, melting point, boiling point, temperature, water cycle, explore, materials, matter, observe, change, heat, cool, measure, Celsius, evaporation, condensation, association, rate, conductor, insulator
Light and Sound (Sound)	sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation, travel, medium, features, object, patterns, distance, waves, tone, speed
Electricity	electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator,



	metal, non-metal, symbol, wire, devices, symbols, conventional, precautions, safely, open, close, lamp resistance
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<b>Year 5</b>	
<b>Unit</b>	<b>Vocabulary</b>
Living Things (Animals, Humans and Plants)	life cycles, mammal, amphibian, insect, bird, reproduction, plants, animals, environment, naturalists, behaviourists, sexual/asexual reproduction, sexual, sperm, fertilises, egg, humans, old age, timeline, growth, puberty, stigma, anther, filament, style, embryo, metamorphosis, live young, runners, bulbs, cuttings
Materials (Properties and Changes of Materials)	compare, materials, properties, hardness, solubility, transparency, conductivity (electrical and thermal), magnets, dissolve, liquid, solution, substance, solid, gas, separate, filtering, sieving, evaporating, fair, comparative, mixing, reversible, irreversible, changes of state, formation, melting, processes
Earth and Space	Earth, sun, solar system, planets, movement, spherical body, moon, rotation, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, dwarf planet, celestial, orbits, axis, hemisphere, diameter, rotates, star
Forces	gravity, objects, air resistance, water resistance, surfaces, friction, push, pull, force, Earth, mechanisms, lever, pulley,





	gear, simple machines Newton, Newton meter, Isaac Newton, gravitation, theory, unbalanced
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<b>Year 6</b>	
<b>Unit</b>	<b>Vocabulary</b>
Living Things (Animals, Humans and Plants)	vertebrates, fish, amphibians, microorganisms, subdivided, invertebrates, reptiles, arthropods, birds, mammals, invertebrates, insects, classification, spiders, snails, worms, Carl Linnaeus, classification, flowering, non-flowering heart, pulse, rate, pumps, function, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, substance, drugs, lifestyle
Earth and Space (Evolution and Inheritance)	Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils, evolution, adaptation, inhabited, Earth
Electricity	circuit, complete circuit, energy, variations, components, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, conductor, insulator, switch, voltage
Light and Sound (Light)	light, straight lines, dark, light source, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, light rays, objects, reflect, refraction, travels, shadows, periscope, phenomena, rainbow, filter



## Y1 – 6 Coverage Overview

Year Groups	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	<p><b><u>Materials</u></b></p> <p>Everyday Materials</p>	<p><b><u>Earth and Space</u></b></p> <p>Seasonal Changes (Autumn)</p> <p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Plants</p>	<p><b><u>Seasonal Changes (Winter)</u></b></p> <p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Animals (Including Humans)</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Animals (Including Humans)</p>	<p><b><u>Earth and Space</u></b></p> <p>Seasonal Changes (Spring)</p> <p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Plants</p>	<p><b><u>Earth and Space</u></b></p> <p>Seasonal Changes (Summer)</p> <p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Plants</p>
Year 2	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Animals (Including humans)</p>	<p><b><u>Materials</u></b></p> <p>Use of Everyday Materials</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Living things and their habitats</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Living things and their habitats</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Plants</p> <p>SATS</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Plants</p> <p>SATS</p>
Year 3	<p><b><u>Materials</u></b></p> <p>Rocks</p>	<p><b><u>Forces and Magnets</u></b></p>	<p><b><u>Forces and Magnets</u></b></p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Animals (including humans)</p>	<p><b><u>Light &amp; Sound</u></b></p> <p>Light</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Plants</p>
Year 4	<p><b><u>Materials</u></b></p> <p>States of Matter</p>	<p><b><u>Materials</u></b></p> <p>States of Matter</p>	<p><b><u>Electricity</u></b></p>	<p><b><u>Light &amp; Sound</u></b></p> <p>Sound</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Animals (Including humans)</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Living things and their habitats</p>
Year 5	<p><b><u>Earth and Space</u></b></p> <p>Earth and Space</p>	<p><b><u>Forces and Magnets</u></b></p> <p>Forces</p>	<p><b><u>Materials</u></b></p> <p>Properties and Changes of Materials</p>	<p><b><u>Materials</u></b></p> <p>Properties and Changes of Materials</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Life Cycles</p>	<p><b><u>Living Things (Animals, Humans and Plants)</u></b></p> <p>Animals (including humans)</p>

# Science Curriculum FHC

Year 6	<u>Living Things (Animals, Humans and Plants)</u>  Living things and their habitats	<u>Living Things (Animals, Humans and Plants)</u>  Animals (including humans)	<u>Living Things (Animals, Humans and Plants)</u>  Evolution and Inheritance	<u>Light and Sound</u>  Light	<u>Light and Sound</u>  Light	<u>Electricity</u>
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## EYFS Coverage Overview

Year Groups	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
FS1	<p><b>Understanding the World</b></p> <p>Exploration of Natural World - animals &amp; their habitats and seasonal changes</p>	<p><b>Understanding the World</b></p> <p>Exploration of Natural World - animals &amp; their habitats and seasonal changes</p>	<p><b>Understanding the World</b></p> <p>Exploration of Natural World – care, growth and change of living things (plants and animals) Planting and growing Bean experiment Melting ice</p>	<p><b>Understanding the World</b></p> <p>Exploration of Natural World – care, growth and change of living things (plants and animals) Planting and growing Bean experiment Melting ice</p>	<p><b>Understanding the World</b></p> <p>Exploration of Natural World - materials, equipment and weather</p>	<p><b>Understanding the World</b></p> <p>Exploration of Natural World - materials, equipment and weather</p>
FS2	<p><b>Understanding the World</b></p> <ul style="list-style-type: none"> <li>• To explore the natural world around them and describe what they see hear and feel whilst outside.</li> </ul>	<p><b>Understanding the World</b></p> <ul style="list-style-type: none"> <li>• To explore the natural world around them and describe what they see hear and feel whilst outside.</li> </ul>	<p><b>Understanding the World</b></p> <ul style="list-style-type: none"> <li>• To explore the natural world around them and describe what they see hear and feel whilst outside.</li> </ul>	<p><b>Understanding the World</b></p> <ul style="list-style-type: none"> <li>• To understand the effect of changing seasons on the natural world around them. (Spring)</li> <li>• To look at and</li> </ul>	<p><b>Understanding the World</b></p> <ul style="list-style-type: none"> <li>• To understand the effect of changing seasons on the natural world around them. (Summer)</li> <li>• To look at and</li> </ul>	<p><b>Understanding the World</b></p> <ul style="list-style-type: none"> <li>• To look at and understand the life cycle of plants and animals.</li> </ul>

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	<ul style="list-style-type: none"> <li>To understand the effect of changing seasons on the natural world around them. (Autumn)</li> </ul>		<ul style="list-style-type: none"> <li>To understand the effect of changing seasons in the natural world around them. (Winter)</li> </ul>	understand the life cycle of plants and animals.	understand the life cycle of plants and animals.	
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## Focus Scientists

Year Groups	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	<b>Charles Macintosh</b> (Everyday Materials)	<b>Mike Seidel</b> (Seasonal Changes)	<b>Jane Goodall</b> (Animals including Humans)		<b>Maria Sibylla Merian</b> (Plants)	
Year 2	<b>Elizabeth Garrett Anderson</b> (Animals including Humans)	<b>John McAdam</b> (Uses of everyday materials)	<b>Dawood Qureshi</b> (Living things and their habitats)		<b>Poppy Okotcha</b> (Plants)	
Year 3	<b>Mary Anning</b> (Rocks)	<b>William Gilbert</b> (Forces and Magnets)		<b>Marie Curie</b> (Animals including Humans)	<b>Percy Shaw</b> (Light)	<b>George Washington Carver</b> (Plants)
Year 4	<b>Maria Telkes</b> (States of Matter)		<b>Garett Morgan</b> (Electricity)	<b>Aristotle</b> (Sound)	<b>Ivan Pavlov</b> (Animals including Humans)	<b>Gerald Durrell</b> (Living things and their habitats)
Year 5	<b>Margaret Hamilton</b> (Earth and Space)	<b>Sir Isaac Newton</b> (Forces)	<b>Stephanie Kwolek</b> (Properties and Changes of Materials)		<b>Eva Crane</b> (Living things and their habitats) Life Cycles	<b>David Attenborough</b> (Animals including Humans)



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Year 6	<b>Libbie Hyman</b> (Living things and their habitats)	<b>Marie Maynard Daly</b> (Animals including Humans)	<b>Charles Darwin</b> (Evolution and Inheritance)	<b>James Webb</b> (Light)	<b>Nikola Tesla</b> (Electricity)