

Science Overview – EYFS, Key Stage 1 and Key Stage 2

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Reception (See continuous provision also)	Topic – All About Me Science Focus - Human Lifecycle Daily weather chart	Topic – Let's Pretend Science Focus – Autumn	Topic – Animals Science Focus – Animal habitats and camouflage Focus Scientist: Ann Bancroft Freezing and melting Winter	Topic – Journeys Science Focus – Space Focus Scientist: Helen Sharman (space) Spring	Topic – Traditional Tales Science Focus – Growing plants, comparing cultures and cooking food Summer	Topic – Changes Science Focus – Lifecycles (butterfly) Focus Scientist: David Attenborough
		Seasonal Changes (Autumn) Animals, including Humans Focus Scientist: Chris Packham	Seasonal Changes (Winter) Focus Scientist: Liam Dutton	Everyday Materials Focus Scientist: William Addis	Seasonal Changes (Spring) Plants Focus Scientist: Beatrix Potter	Science Adventurers! Recapping of objectives taught so far.	Seasonal Changes (Summer) Animals including Humans
Key Stage 1	Year 1	Uses of Everyday Materials Focus Scientist: Charles Macintosh	Living Things and their Habitats Focus Scientist: Rachel Carson	Living Things and their Habitats Focus Scientist: Rachel Carson	Plants Focus Scientist: George Washington Carver	Science Adventurers! Recapping of objectives taught so far.	Animals including Humans Focus Scientist: Yan Le Meur
		Year 2	Forces and Magnets Focus Scientist: William Gilbert	Rocks Focus Scientist: Mary Anning	Light Focus Scientist: Ibn al-Haytham	Animals including Humans Focus Scientist: Wilhelm Rontgen	Science Adventurers! Recapping of objectives taught so far.
Lower Key Stage 2	Year 3	States of Matter Focus Scientist: Daniel Fahrenheit	Sound Focus Scientist: Evelyn Glennie	Electricity Focus Scientist: Michael Faraday	Animals including Humans Focus Scientist: Ivan Pavlov	Science Adventurers! Recapping of objectives taught so far.	Living Things and their Habitats Focus Scientist: Gladys West
		Year 4					

Upper Key Stage 2	Year 5	Forces Focus Scientist: Isaac Newton	Properties and Changes of Materials Focus Scientist: Becky Schroeder	Properties and Changes of Materials Focus Scientist: Becky Schroeder	Living Things and their Habitats Focus Scientist: Malaika Vaz Animals including Humans Focus Scientist: Sigmund Freud	Science Adventurers! Recapping of objectives taught so far.	Earth and Space Focus Scientist: Mai Jemison
	Year 6	Evolution and Inheritance Focus Scientist: Rosalind Franklin and Charles Darwin	Living Things and their Habitats Focus Scientist: Carl Linneus	Light Focus Scientist: CV Raman	Animals including Humans Focus Scientist: Marie M Daley	Science Adventurers! Recapping of objectives taught so far.	Electricity Focus Scientist: Nikola Tesla

Early Years Foundation Stage - Related to Science

Communication and Language

ELG Listening, Attention and Understanding

Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions.

Make comments about what they have heard and ask questions to clarify their understanding.

Hold conversations when engaged in back-and-forth exchanges with their teacher and peers.

ELG Speaking

Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.

Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate.

Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher.

Understanding the World

The Natural World Early Learning Goal

- Explore the natural world around them, making observations and drawing pictures of animals and plants;
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class;
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>All About Me!</p> <p>Further develop the skills they need to manage the day successfully, e.g lining up and queueing, mealtimes, personal hygiene.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p>Let's Pretend</p> <p>Describe events in some detail.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p>Animals</p> <p>Engage in non-fiction books.</p> <p>Listen to and talk about selected non-fiction to develop a deep familiarity with new knowledge and vocabulary.</p> <p>Know and talk about the different factors that support their overall health and wellbeing, e.g. regular physical activity, healthy eating, toothbrushing, sensible amounts of screen time, having a good sleep routine, being a safe pedestrian.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Explore the natural world around them.</p> <p>Recognise some environments that are different to the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p>Journeys</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Explore the natural world around them.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p>Traditional Tales</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Explore the natural world around them.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p>Changes</p> <p>Explore the natural world around them.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>

See Appendix 1 for a list of continuous Science provision provided throughout the academic year in Reception.

Characteristics of Effective Learning – Creating and Thinking Critically

Having their own ideas

Making links

Choosing ways to do things

National Curriculum - Science

Purpose of study

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

Aims

The national curriculum for science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

National Curriculum - Key stage 1

The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.

'Working scientifically' is described separately in the programme of study, but must always be taught through and clearly related to the teaching of substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.

Pupils should read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Year 1

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Animals, including Humans Identify, name, draw and label the main basic parts of the human body and say which part of the body is associated with each sense.</p> <p>Focus Scientist: Wilhelm Rontgen</p> <p>Seasonal Changes (Autumn) Observe and discuss changes across the four seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>	<p>Seasonal Changes (Winter) Observe and discuss changes across the four seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>	<p>Everyday Materials Distinguish between an object and the material from which it is made</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Describe the simple physical properties of a variety of everyday materials</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p>	<p>Seasonal Changes (Spring) Observe and discuss changes across the four seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p> <p>Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees.</p>	<p>Science Adventures!</p>	<p>Animals, including Humans Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>Seasonal Changes (Summer) Observe and discuss changes across the four seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>

Working Scientifically

- Asking simple questions and recognising they can be answered in different ways.
- Observing closely, using simple equipment.
- Performing simple tests.
- Identifying and classifying.
- Using their observations and ideas to suggest answers to questions.
- Gathering and recording data to help in answering questions.

Year 2

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Uses of Everyday Materials identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p> <p>Focus Scientist: Charles Macintosh</p>	<p>Living Things and their Habitats Explore and compare the differences between things that are living, dead, and things that have never been alive</p>	<p>Living Things and their Habitats Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p>	<p>Plants Observe and describe how seeds and bulbs grow into mature plants</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p>Science Adventures!</p>	<p>Animals, including Humans Notice that animals, including humans, have offspring which grow into adults</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>

Working Scientifically

- Asking simple questions and recognising they can be answered in different ways.
- Observing closely, using simple equipment.
- Performing simple tests.
- Identifying and classifying.
- Using their observations and ideas to suggest answers to questions.
- Gathering and recording data to help in answering questions.

National Curriculum – Lower Key stage 2 – Year 3 and 4

The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

'Working scientifically' is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.

Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	<p>Forces and Magnets Compare how things move on different surfaces</p> <p>Observe that some forces need contact between two objects, but magnetic forces can act at a distance</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing</p> <p>observe how they attract some materials and not others</p> <p>compare and group together a variety of everyday materials on</p>	<p>Rocks Compare and group together different kinds of rocks on the basis of 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>Light Recognise that they need light in order to see things and that dark is the absence of light</p> <p>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>Animals, including Humans Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>	<p>Science Adventures!</p>	<p>Plants Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</p> <p>Investigate the way in which water is transported within plants</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination,</p>

the basis of whether they are attracted to a magnet, and identify some magnetic materials. Focus Scientist: Isaac Newton		Find patterns in the way that the size of shadows change.			seed formation and seed dispersal.
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Working Scientifically					
• Asking relevant questions and using different types of scientific enquires to answer them.					
• Setting up					
Simple practical enquiries		Comparative tests		Fair tests	
• Making Systematic and careful observations and where appropriate, take accurate measurements using standard units, using a range of equipment including -					
Thermometers			Dataloggers		
• Answering questions in a variety of ways					
Gathering information		Recording information		Presenting data	
• Record findings using -					
Simple scientific language		Labelled diagrams		Tables	
Drawings		Keys		Bar charts	
• Report on findings from enquiries using results and conclusions -					
Written explanations		Oral explanations		Presentation	
• Using results to draw simple conclusions -					
Make predictions for new values		Suggest improvements		Raise further questions	
• Related to simple scientific ideas and process -					
Identify differences		Identify changes		Identify similarities	
• Using straightforward scientific evidence to -					
Answer questions			Support their finding		

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>States of Matter Compare and group materials together, according to whether they are solids, liquids or gases</p> <p>Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p>Sound Identify how sounds are made, associating some of them with something vibrating</p> <p>Recognise that vibrations from sounds travel through a medium to the ear</p> <p>Find patterns between the pitch of a sound and features of the object that produced it</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it</p> <p>Recognise that sounds get fainter as the distance from the sound source increases.</p>	<p>Electricity Identify common appliances that run on electricity</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p> <p>Focus Scientist: Samuel Morse</p>	<p>Animals, including Humans To describe the simple functions of the basic parts of the digestive system in humans and understand their special functions</p> <p>Identify the different types of teeth in humans and their simple functions</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey.</p>	<p>Science Adventures!</p>	<p>Living Things and their Habitats Recognise that living things can be grouped in a variety of ways</p> <p>Explore and use classification keys to help group, identify and name a variety of living things (including animals and flowering plants and non-flowering plants) in their local and wider environment</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p>
Working Scientifically					
<ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquires to answer them. Setting up 					
Simple practical enquiries		Comparative tests		Fair tests	
<ul style="list-style-type: none"> Making Systematic and careful observations and where appropriate, take accurate measurements using standard units, using a range of equipment including - 					
Thermometers			Dataloggers		
<ul style="list-style-type: none"> Answering questions in a variety of ways 					
Gathering information		Recording information		Classifying information	
<ul style="list-style-type: none"> Record findings using - 					
Simple scientific language		Labelled diagrams	Drawings	Keys	Bar charts
Tables					

• Report on findings from enquiries using results and conclusions -			
Written explanations	Oral explanations	Displays	Presentation
• Using results to draw simple conclusions -			
Make predictions for new values	Suggest improvements	Raise further questions	
• Related to simple scientific ideas and process -			
Identify differences	Identify changes	Identify similarities	
• Using straightforward scientific evidence to -			
Answer questions	Support their finding		

National Curriculum – Upper Key stage 2 – Year 5 and 6

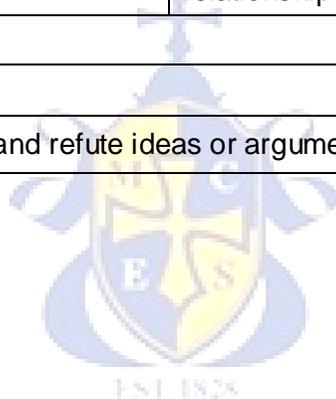
The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

'Working and thinking scientifically' is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.

Pupils should read, spell and pronounce scientific vocabulary correctly.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Forces Explore and explain unsupported objects falling towards the Earth because of the force of gravity</p> <p>Explore and identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>	<p>Properties and Changes in Materials Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>Observe and explain that some changes result in the formation of new materials (usually irreversible), including changes associated with burning and the action of acid on bicarbonate of soda.</p>	<p>Properties and Changes in Materials Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>Animals, including Humans Describe the changes as humans develop to old age.</p>	<p>Living Things and their Habitats Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>Describe the life process of reproduction in some plants and animals.</p> <p>Focus Scientist: Jane Goodall</p>	<p>Science Adventures!</p>	<p>Earth and Space Describe the movement of the Earth, and other planets, relative to the Sun (a star) in the solar system</p> <p>Describe the movement of the Moon relative to the Earth</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky (use a model to explain).</p> <p>Focus Scientist: Galileo Galilei</p>

Working Scientifically					
Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary					
Using a range of scientific equipment, with increasing accuracy and precision					
Take measurements			Take repeat readings as appropriate		
Record data and results with increasing complexity using -					
Scientific diagrams and labels	Classification keys	Tables	Scatter graphs	Bar Graph	Line graph
Using test results to make predictions to set up further comparative and fair tests.					
Reporting and presenting findings from enquiries including -					
Conclusions		Causal relationships	Explanations		Degree of trust in results
In written and oral forms such as					
Displays			Other presentations		
Identifying scientific evidence that has been used to support and refute ideas or arguments					



Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Evolution and Inheritance Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</p> <p>Focus Scientist: Charles Darwin and Mary Anning</p>	<p>Living Things and their Habitats 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</p> <p>Give reasons for classifying plants and animals based on specific characteristics.</p> <p>Focus Scientist: Rachel Carson</p>	<p>Light Recognise that light appears to travel in straight lines</p> <p>Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</p> <p>Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>	<p>Animal, including Humans Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans.</p>	<p>Science Adventures!</p>	<p>Electricity Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p>Use recognised symbols when representing a simple circuit in a diagram.</p>
Working Scientifically					
Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary					
Using a range of scientific equipment, with increasing accuracy and precision					
Take measurements			<i>Take repeat readings as appropriate</i>		
Record data and results with increasing complexity using -					
Scientific diagrams and labels	Classification keys	Tables	Scatter graphs	Bar Graph	Line graph

Using test results to make predictions to set up further comparative and fair tests.			
Reporting and presenting findings from enquiries including -			
Conclusions	Causal relationships	<i>Explanations</i>	<i>Degree of trust in results</i>
In written and oral forms such as			
Displays		<i>Other presentations</i>	
Identifying scientific evidence that has been used to support and refute ideas or arguments			



Science - Subject Specific Vocabulary Children should confidently understand and use

The subject specific vocabulary listed links to the units outlined in the Science National Curriculum. Children should be explicitly taught to confidently understand and use this vocabulary. Teachers should also model, and promote the use of, vocabulary learnt in previous year groups.

EYFS	Human Lifecycle Babies, toddler, children, teenager, adult and change. Frog and Butterfly Lifecycles Egg, cocoon, chrysalis, hatch, butterfly, change, frogspawn, tadpole, froglet, frog, legs and pond.	Animal habitats and camouflage Animals, farm, desert, jungle, rainforest, arctic, ocean, camouflage, habitat, fur, skin, pattern, claws, fins, tusks, trunk, tail, hooves, a range of common animal names and names for their young.	Floating & sinking and materials Materials, wood, plastic, glass, metal, paper, bendy, stretchy, hard, soft, strong, tough, rough, float, sink, heavy and light.	Plants Leaves/ leaf, flower, seed, root, water, soil, sun, pot, grow, light and names of common fruit and vegetables.	Autumn Autumn, change, season, leaf, autumnal colours, tree, conker, berries, fern cone, hibernation and fall.	Environmental Impact Recycling, reuse, paper, glass, plastic, compost, tin, metal, plastic pollution and ocean.
Year 1	Animals, including Humans Fish, amphibians, birds, mammals, reptiles, scales, feathers, wing, tail, claw, fin, beak, carnivores, herbivores, omnivores, the 5 senses and names of a range of body parts.		Everyday Materials Object, material, water, rock, brick, paper, fabrics, elastic, cardboard, rubber, wool, clay, stiff, waterproof, absorbent, tear, shiny, dull, see through and not see through.	Plants Blossom, petal, fruit, berry, bulb, trunk, branch, stem, bark, vegetable, deciduous, evergreen, wild plants, garden plants, and names of common flowers and vegetables.	Seasonal Changes Season, spring, summer, autumn, winter, weather, hot/warm, cold/cool, sunny, cloudy, windy, rainy, snowing, hailing, sleet, frost, fog, icy, rainbow, thunder, lightning, storm, light, dark, day and night.	

<p>Year 2</p>	<p>Animals, including Humans</p> <p>Offspring, life cycles, babies, young, grow, change, adults, older, younger, baby, toddler, child, teenager, reproduce, basic needs, water, food, air, breathing, survival, exercise, hygiene, healthy, medicine, food groups and examples of food for those groups,</p>	<p>Living Things and Their Habitats</p> <p>Living, dead, never been alive, move, grow, feed, offspring, babies, young, names of local habitats, names of microhabitats, dry, damp/wet, dark, light, hot/war, cold/cool, use of comparative adjectives (e.g. hotter), suitable, basic needs, food chain and shelter.</p>	<p>Use of Everyday Materials</p> <p>Suitable, unsuitable, rigid, flexible, reflective, non-reflective, transparent, opaque, translucent, push, pull, twist, squash, bend, squeeze and stretch.</p>	<p>Plants</p> <p>Fully grown, water, light, damp, wet, dry, dark, light, hot/warm, cold/cool, comparative adjectives (e.g. hotter), grow, healthy, shoot, seedling, germination, wither, die, dry, soil and earth.</p>		
<p>Year 3</p>	<p>Animals, including Humans</p> <p>Nutrients, nutrition, carbohydrates, protein, vitamins and minerals, fat, fibre, water, balanced diet, skeleton, vertebrate, invertebrate, endoskeleton, exoskeleton, support, protection, movement, skull, muscles, ribs, spine, joints, bones and tendons.</p>		<p>Rocks</p> <p>Stone, pebble, boulder, soil, names of types of soil fossils, grains, crystals, hard, soft, texture, absorb, marble, chalk, granite, sandstone and slate.</p>	<p>Plants</p> <p>Blossom, nutrients, fertiliser, temperature, transported, pollination, seed formation and seed dispersal.</p>	<p>Light</p> <p>Light source, names of various light sources, dark, reflect, reflective, mirror, shadow, block, transparent, opaque and translucent</p>	<p>Forces and Magnets</p> <p>Force, push, pull, magnetic, magnet, bar magnet, ring magnet, horse shoe magnet, attract, repel, iron, steel, non-magnetic, poles, north pole and south pole.</p>

<p>Year 4</p>	<p>Animals, including Humans</p> <p>Teeth, canines, incisor, molar, pre-molar, saliva, tongue, rip, tear, chew, grind, cut, digestive system, oesophagus, stomach, small intestine, large intestine, rectum, anus, producer, consumer, predator and prey.</p>	<p>Living Things and their Habitats</p> <p>Classification keys, classify, environment, fish, amphibians, reptiles, birds, mammals, vertebrates, invertebrates, names of some invertebrates and positive & negative human impact.</p>	<p>States of Matter</p> <p>States of matter, solid, liquid, gas, powder, grain, crystals, changing state, ice, water, steam, water vapour, heating, cooling, temperature, degrees Celsius, melt, freeze, solidify, melting point, molten, boil, boiling point, evaporation/evaporate, condensation/condense, water cycle, precipitation and transpiration.</p>		<p>Sound</p> <p>Sound source, noise, vibration/ vibrate, travel, medium, solid, liquid, gas, pitch, tune, high, low, volume, loud, quiet, muffle, fainter, insulation, instrument, percussion, strings, brass, woodwind and tuned instrument..</p>	<p>Electricity</p> <p>Appliances/ devices, mains, plug, electrical circuit, complete circuit, circuit diagram, circuit symbol, components, cell, battery, positive, negative, connect, loose connection, short circuit, wire, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, bright and dim.</p>
<p>Year 5</p>	<p>Animals, including Humans</p> <p>Puberty, gestation, foetus, fertilisation, old age, life expectancy, adolescence, adulthood and childhood.</p>	<p>Living Things and their Habitats</p> <p>Life cycle, reproduction, sexual, asexual, mammal, amphibian, insect, bird, fish, reptile, eggs and live young.</p>	<p>Properties and Changes in Materials</p> <p>Solubility, electrical conductivity, thermal conductivity, melting, dissolve, solution, soluble, insoluble, solute, solvent, particle, mixture, filtering, sieving, evaporating, condensing, reversible changes, irreversible, burning, rusting and gas being given off.</p>		<p>Earth and Space</p> <p>Earth, planets, Sun, solar system, Moon, names of the planets, celestial body, sphere/spherical, rotate/rotation, spin, night, day, 'dwarf' planet, orbit, axis, tilt, revolve, geocentric model, heliocentric model, shadow clocks, sundials and astronomical clocks.</p>	<p>Forces</p> <p>Earth, fall, gravity, air resistance, water resistance, friction, moving surfaces, accelerate, decelerate, mechanisms, levers, pulleys, gears, force and transfers</p>

Year 6	Animals, including Humans Circulatory system, heart, liver, lungs, kidney, brain, skeletal, blood, blood vessels, pumps, oxygen, carbon dioxide, water, diet, alcohol, substances, exercise and lifestyle.	Living Things and their Habitats Organism, micro-organisms, kingdom, domain, fungus, arachnid, mollusc, phylum, insect and crustacean.		Evolution and Inheritance Evolution, suited, adaption/ adapted, traits, DNA, genes, fossilisation, characteristics, environment, offspring, vary/variation, inherit/inheritance and fossils	Light Absorb	Electricity Terminal, volume, voltage, current and resistance.
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Science – Working Scientifically Vocabulary Children should confidently understand and use

EYFS	
Key Stage 1	Equipment, gather, measure, record, results, evidence, test, explore, observe, compare, describe, similarities/ similar, differences/different, identify, classify, sort, group, observe changes over time, notice patterns, secondary sources, hand lenses, beaker, pipette and syringe. (Additional for Year 2 – pictogram, tally chart, block diagram, Venn diagram, table and chart)
Lower Key Stage 2	Types of scientific enquiry, link, comparative tests, fair tests, accurate, observations, present, data, conclusions, prediction, thermometers, data loggers, magnifying glass and microscope. (Additional for Year 4 – increase, decrease and appearance)
Upper Key Stage 2	Opinion, fact, variables, accuracy, precision, degree of trust, classification keys, scatter graphs, line graphs, casual relationships and refute.



Appendix 1

Continuous Science Provision in EYFS

Magnifying glasses
Bug collectors
Torches
Metal Detectors
Magnets
Plastic mini beasts
Play dough
Kinetic Sand
Pasta, Rice, Cornflakes and Oats
Cornflour
Kaleidoscopes
Colour paddles
Seashells and sea creatures
Light box and resources
Gardening equipment
Digging Area
Mud Kitchen
Sand
Water
Dinosaur bones and excavating tools
Magnets
Natural resources in indoor and outdoor area - conkers, fir cones, leaves, stones, sticks