

# Class 1 Curriculum Map for Science Cycle A

Across all year groups scientific knowledge and skills should be learned by working scientifically. (See Progression of Skills below.)

Cycle A					
Autumn 1	Autumn 2	Spring 3	Spring 4	Summer 5	Summer 6
All About Me	Toy Box	Homes	Fur, Feet and Feathers	Into the Woods	Dinosaur Roar
<p><b>EYFS: Age 3-4</b> <b><u>Understanding the World</u></b> <b><u>The Natural World:</u></b> *Use all their senses in hands-on exploration of natural materials.</p> <ul style="list-style-type: none"> <li>• Talk about what they see, using a wide vocabulary.</li> <li>• Explore how things work.</li> <li>• Care for growing plants.</li> <li>• Understand the key features of the life cycle of an animal.</li> <li>• Begin to understand the need to respect and care for the natural environment and all living things.</li> <li>• Explore and talk about different forces they can feel.</li> </ul>	<p><b>EYFS: Age 3-4</b> <b><u>Understanding the World</u></b> <b><u>The Natural World:</u></b> *Use all their senses in hands-on exploration of natural materials.</p> <ul style="list-style-type: none"> <li>• Explore collections of materials with similar and/or different properties.</li> <li>• Talk about what they see, using a wide vocabulary.</li> <li>• Explore how things work.</li> <li>• Begin to understand the need to respect and care for the natural environment and all living things.</li> <li>• Explore and talk about different forces they can feel.</li> <li>• Talk about the differences between materials and changes they notice.</li> </ul>	<p><b>EYFS: Age 4-5</b> <b><u>Understanding the World</u></b></p> <p>*Explore the natural world around them.</p> <ul style="list-style-type: none"> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Recognise some environments that are different to the one in which they live.</li> <li>• Understand the effect of changing seasons on the natural world around them</li> </ul> <p>*Talk about the differences between materials and changes they notice.</p>	<p><b>EYFS: Age 4-5</b> <b><u>Understanding the World</u></b></p> <p>* Plant seeds and care for growing plants.</p> <ul style="list-style-type: none"> <li>• Understand the key features of the life cycle of a plant and an animal.</li> </ul> <p>*Explore the natural world around them.</p> <ul style="list-style-type: none"> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Recognise some environments that are different to the one in which they live.</li> <li>• Understand the effect of changing seasons on the natural world around them</li> </ul>	<p><b>EYFS: Age 4-5</b> <b><u>Understanding the World</u></b> <b><u>The Natural World:</u></b> *Plant seeds and care for growing plants.</p> <ul style="list-style-type: none"> <li>• Explore how things work.</li> <li>• Understand the key features of the life cycle of a plant.</li> </ul> <p>*Explore the natural world around them.</p> <ul style="list-style-type: none"> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Recognise some environments that are different to the one in which they live.</li> <li>• Understand the effect of changing seasons on the natural world around them</li> </ul>	<p><b>EYFS:ELG: Understanding the World</b> <b><u>The Natural World:</u></b> *Explore the natural world around them, making observations and drawing pictures of animals and plants.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</li> </ul>
<p><b>ANIMALS, INCLUDING HUMANS Y1</b></p> <ul style="list-style-type: none"> <li>• Know how to name the parts of the human body that can be seen</li> </ul> <p>*Know how to link the correct part of the human body to each sense</p>	<p><b>EVERYDAY MATERIALS Y1</b> (Toys)</p> <ul style="list-style-type: none"> <li>• Distinguish between an object and the material from which it is made</li> <li>• identify and name a variety of everyday materials, including wood, metal, and plastic.</li> </ul>	<p><b>EVERYDAY MATERIALS Y1</b> (building and construction)</p> <ul style="list-style-type: none"> <li>• identify and name a variety of everyday materials, including wood, rock, glass, metal, water, and plastic.</li> <li>• describe the simple physical properties of a variety of everyday materials</li> <li>• compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p><b>ANIMALS: (Pets / Farm/ Birds) Y1</b></p> <ul style="list-style-type: none"> <li>• Know and name a variety of animals, including fish, amphibians, reptiles, birds and mammals</li> </ul> <p>* Classify and know animals by what they eat (carnivore, herbivore and omnivore)</p> <p>*Know how to sort animals into categories (including fish, amphibians, reptiles, birds and mammals)</p> <p>*Know how to sort living and non-living things</p>	<p><b>PLANTS Y1</b></p> <p>*Know and name a variety of common wild and garden plants</p> <p>*Know and name the petals, stem, leaves and root of a plant</p> <p>*Know and name the roots, trunk, branches and leaves of a <u>tree</u>.</p>	<p><b>ANIMALS, INCLUDING HUMANS cont. Y1</b></p> <ul style="list-style-type: none"> <li>• Identify and name a variety of common animals including fish, amphibians, <u>reptiles</u>, birds and mammals</li> <li>• identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>• describe and compare the structure of a variety of common animals (fish, amphibians, <u>reptiles</u>, birds and mammals.)</li> </ul>
<p><b>Scientist: Doctors, nurses, opticians</b></p>	<p><b>Scientist: Ole Kirk Christiansen - Inventor of Lego</b></p>	<p><b>Scientist: Maddie Moate on CBBC</b></p>	<p><b>Scientist: Beatrix Potter author and natural scientist</b></p>	<p><b>Scientist: David Bellamy (Tree Appeal)</b></p>	<p><b>Scientist: Mary Anning- Fossil Hunter</b></p>
SEASONAL CHANGES: • Observe changes across the four seasons		* Observe and describe weather associated with the seasons			

## SCIENCE Curriculum Cycle B

## Class 1

Cycle B					
Autumn 1	Autumn 2	Spring 3	Spring 4	Summer 5	Summer 6
<b>Marvellous Me</b>	<b>Material World</b>	<b>Frozen</b>	<b>Gardener's World</b>	<b>Hot Places</b>	<b>Buckets and Spades</b>
<p><b>EYFS: Age 3-4</b> <b><u>Understanding the World</u></b> <b><u>The Natural World:</u></b> *Use all their senses in hands-on exploration of natural materials.</p> <ul style="list-style-type: none"> <li>• Talk about what they see, using a wide vocabulary.</li> <li>• Explore how things work.</li> <li>• Care for growing plants.</li> <li>• Understand the key features of the life cycle of an animal.</li> <li>• Begin to understand the need to respect and care for the natural environment and all living things.</li> <li>• Explore and talk about different forces they can feel.</li> </ul>	<p><b>EYFS: Age 3-4</b> <b><u>Understanding the World</u></b> <b><u>The Natural World:</u></b> *Use all their senses in hands-on exploration of natural materials.</p> <ul style="list-style-type: none"> <li>• Explore collections of materials with similar and/or different properties.</li> <li>• Talk about what they see, using a wide vocabulary.</li> <li>• Explore how things work.</li> <li>• Begin to understand the need to respect and care for the natural environment and all living things.</li> <li>• Explore and talk about different forces they can feel.</li> <li>• Talk about the differences between materials and changes they notice.</li> </ul>	<p><b>EYFS: Age 4-5</b> <b><u>Understanding the World</u></b> *Explore the natural world around them.</p> <ul style="list-style-type: none"> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Recognise some environments that are different to the one in which they live.</li> <li>• Understand the effect of changing seasons on the natural world around them</li> <li>*Talk about the differences between materials and changes they notice.</li> </ul>	<p><b>EYFS: Age 4-5</b> <b><u>Understanding the World</u></b> *Explore the natural world around them.</p> <ul style="list-style-type: none"> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Recognise some environments that are different to the one in which they live.</li> <li>• Understand the effect of changing seasons on the natural world around them</li> <li>*Talk about the differences between materials and changes they notice.</li> </ul>	<p><b>EYFS: Age 4-5</b> <b><u>Understanding the World</u></b> * Plant seeds and care for growing plants.</p> <ul style="list-style-type: none"> <li>• Understand the key features of the life cycle of a plant and an animal.</li> <li>*Explore the natural world around them.</li> <li>• Describe what they see, hear and feel whilst outside.</li> <li>• Recognise some environments that are different to the one in which they live.</li> <li>• Understand the effect of changing seasons on the natural world around them</li> </ul>	<p><b>EYFS:ELG: Understanding the World</b> <b><u>The Natural World:</u></b> *Explore the natural world around them, making observations and drawing pictures of animals and plants.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</li> </ul>
<p><b>ANIMALS, INCLUDING HUMANS Y1</b></p> <ul style="list-style-type: none"> <li>• Know how to name the parts of the human body that can be seen</li> <li>*Know how to link the correct part of the human body to each <b>sense</b></li> </ul>	<p><b>EVERYDAY MATERIALS Y1</b> (Clothing)</p> <ul style="list-style-type: none"> <li>• distinguish between an object and the material from which it is made</li> <li>• identify and name a variety of everyday materials, including fabrics, plastic, glass, wood, metal, water, and rock</li> <li>• describe the simple physical properties of a variety of everyday materials</li> <li>• compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p><b>ANIMALS, INCLUDING HUMANS Y1</b> (Cold Places)</p> <ul style="list-style-type: none"> <li>• Know and name a variety of animals, including fish, amphibians, reptiles, birds and mammals</li> <li>* Classify and know animals by what they eat (carnivore, herbivore and omnivore)</li> <li>*Know how to sort animals into categories (including fish, amphibians, reptiles, birds and mammals)</li> <li>*Know how to sort living and non-living things</li> </ul>	<p><b>PLANTS Y1</b> (Local)</p> <ul style="list-style-type: none"> <li>*Know and name a variety of common wild and <u>garden plants</u></li> <li>*Know and name the petals, stem, leaves and root of a plant</li> <li>*Know and name the roots, trunk, branches and leaves of a tree.</li> </ul> <p><b>ANIMALS:</b> Identify and name a variety of common animals including birds and minibeasts.</p>	<p><b>PLANTS Y1</b></p> <ul style="list-style-type: none"> <li>*Identify and name a variety of common wild and garden plants,</li> <li>• identify and describe the basic structure of a variety of common flowering plants, (found in hot places).</li> </ul> <p><b>ANIMALS:</b> *Identify and name a variety of common animals including, amphibians, reptiles, birds and mammals</p>	<p><b>ANIMALS: Y1</b> (Sea Life)</p> <ul style="list-style-type: none"> <li>•Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li> <li>• identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>*Know how to sort animals into categories (including fish, amphibians, reptiles, birds and mammals)</li> <li>*Know how to sort living and non-living things</li> </ul>
<b>Scientist: Doctors, nurses, opticians</b>	<b>Scientist: Charles Macintosh- raincoats</b>	<b>Scientist: Sir David Attenborough</b>	<b>Scientist: Edwin Beard Budding – local inventor of lawnmower</b>	<b>Scientist: Maddie Moate on CBBC</b>	<b>Scientist: Boyan Slat - Inventor of Ocean Clean Up.</b>
SEASONAL CHANGES: • Observe changes across the four seasons			* observe and describe weather associated with the seasons		

## Progression of Skills in Year 1 Science

Skill domains:	Year 1
<p><b>EXPLORING / OBSERVING</b></p> <p><i>KS1 - Observing closely Using their observations and ideas to suggest answers to questions.</i></p>	<ul style="list-style-type: none"> <li>• <u>Begin to use simple scientific language (from Y1 PoS) to talk about or record what they have noticed.</u></li> <li>• Use observations to make suggestions and/or ask questions.</li> <li>• <u>Look / observe closely and communicate changes over time.</u></li> <li>• <u>Look / observe closely and communicate the features or properties of things in the real world.</u></li> <li>• <b>Observe</b> closely using their senses</li> </ul>
<p><b>GROUPING AND CLASSIFYING</b></p> <p><i>KS1 - Compare and contrast a variety of examples linked to KS1 PoS.</i></p>	<ul style="list-style-type: none"> <li>• <b>Name</b>/identify common examples and some common features.</li> <li>• With help, decide how to sort and <b>group</b> objects, materials or living things.</li> <li>• <b>Name</b> basic features of objects, materials and living things.</li> <li>• <u>Say how things are similar or different.</u></li> <li>• <b>Compare</b> and contrast simple observable features / characteristics of objects, materials and living things.</li> </ul>
<p><b>QUESTIONING</b></p> <p><i>KS1 - Asking simple questions.</i></p>	<ul style="list-style-type: none"> <li>• <u>Ask simple questions about what they notice about the world around them.</u></li> <li>• <u>Demonstrate curiosity by the questions they ask.</u></li> </ul>
<p><b>RESEARCH</b></p> <p><i>KS1 - Finding things out using secondary sources of information.</i></p>	<ul style="list-style-type: none"> <li>• Ask people questions (e.g. an expert or hot-seating).</li> <li>• <u>Use simple primary and secondary sources</u> (such as objects, books and photographs) to find things out.</li> </ul>
<p><b>MODELLING</b></p> <p><i>Non Statutory</i> <i>Using dance, drama or a visual aid to represent science in the real world.</i></p>	<ul style="list-style-type: none"> <li>• With help, follow movements (dance / drama) to act out their science.</li> </ul>
<p><b>COLLABORATING</b></p> <p><i>Non Statutory</i> <i>Interacting effectively as part of a group.</i></p>	<ul style="list-style-type: none"> <li>• Share ideas in a group and listen to the ideas of others.</li> <li>• Work with others on a science task.</li> </ul>
<p><b>PLANNING AND TESTING</b></p> <p><i>KS1 - Performing simple tests.</i></p>	<ul style="list-style-type: none"> <li>• <u>With help, carry out a simple test/comparative test.</u></li> <li>• With help, make a simple prediction or suggestion about what might happen.</li> <li>• Begin to suggest some ideas e.g. choose which equipment to use, choose which materials to test from a selection.</li> <li>• <b>Talk</b> about ways of setting up a test.</li> </ul>
<p><b>USING EQUIPMENT AND MEASURES</b></p> <p><i>KS1 - Using simple equipment and gathering data to help in answering their questions</i></p>	<ul style="list-style-type: none"> <li>• <b>Measure</b> using non-standard units e.g. how many lolly sticks/cubes/handfuls, etc.</li> <li>• <u>Observe closely, using simple equipment</u>(e.g. hand lenses, egg timers).</li> <li>• Use senses to <b>compare</b> different textures, sounds and smells.</li> <li>•</li> </ul>

<b>COMMUNICATING</b> <b>UKS2 / LKS2 / KS1</b> <i>Reporting findings, recording data, presenting findings.</i> <i>Read, spell and pronounce scientific vocabulary correctly linked to the relevant year group (See Vocabulary List)</i>	<ul style="list-style-type: none"> <li>Communicate their ideas to a range of audiences in a variety of ways.</li> <li>Complete a pre-constructed table / chart using picture records or simple words.</li> <li>Contribute to a class display.</li> <li>Add annotations to drawings or photographs.</li> <li>Begin to use some simple scientific language from Y1 PoS.</li> <li><b>Record</b> simple visual representations of observations made.</li> </ul>
<b>DESCRIBING RESULTS / LOOKING FOR PATTERNS</b> <b>KS1 - Talk about what happened / what they noticed.</b>	<ul style="list-style-type: none"> <li>Use recordings to talk about and describe what happened</li> <li>Sequence photographs of an event/observation.</li> </ul>
<b>EXPLAINING RESULTS</b> <b>KS1 - Talk about what they found out.</b>	Begin to use simple scientific language (from Y1 PoS) to talk about what they have found out or why something happened.
<b>TRUSTING RESULTS</b>	N/A in Y1.

## SCIENCE VOCABULARY

KS1						
Science Topic:	Working Scientifically (ongoing)	Animals including Humans	Plants	Living Things	Materials	Earth and Space
	experience observe changes patterns grouping sorting classifying compare identify (name) data measure record equipment questions test investigate explore magnifying glass / hand lens same different	names of common animals: fish, amphibians, reptiles, birds, mammals, carnivores, herbivores, omnivores, human body senses see, hear, feel, smell, taste habitat local environment pet wild animal insect minibeast food, eat head, neck, body, arms, legs ears, eyes, nose, mouth, tongue hands, feet, fingers, toes, elbows, knees, hair, teeth grow healthy offspring adults young water air survive exercise hygiene egg, chick, chicken caterpillar, pupa, moth, butterfly tadpole, frog, frog spawn lamb, sheep calf, cow foal, horse	plants wild plants garden plants evergreen trees deciduous trees common flowering plants flowers vegetables leaf/leaves flower blossom petal stem trunk branch root seed bulb bud growth grow habitat local environment leaf fall water light temperature healthy growth survive soil germinate stages of growth	pond garden field park woodland sea shore river ocean forest rainforest stones rocks logs leaf litter habitat micro-habitat living dead not living alive healthy food food chain depend source of food shelter grow growth healthy	everyday materials wood paper plastic metal glass water rock brick stone fabric material foil elastic dough rubber card cardboard clay object make/made hard/soft shiny/dull stretchy/stiff rough/smooth bendy/not bendy waterproof/not waterproof transparent/opaque absorbent/not absorbent squash twist, bend, stretch	seasons seasonal change spring summer autumn winter weather sun sunshine rain snow sleet ice frost fog cloud hot cold storm sky earth night day

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