



# Rotherhithe Primary School Science Curriculum Map



Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>EYFS</p> <p><b>Understanding of the World Science</b></p> <p>Developing Experts</p> <p><b>See Rocket Words</b></p> <p>Forest School</p>	<p><b>Our Body</b> Learn about your body parts: the arms, legs and chest, hands, feet, eyes, nose, ears, mouth and hair. Discover how our bodies change. Explore our similarities and how we are all unique. How human's grow and change. Focus on oral hygiene. <i>Linked Stories: "What happened to you" By James Catchpole</i></p> <p><b>Animals</b> Learn that animals are living things. Discover where animals live and what they need to survive. Explore where birds live. Learn about farm animals.</p> <p><b>Materials</b> The three little pigs. Why did the house blow down? Which material is best and why? Build a new house for the three little pigs.</p>	<p><b>Weather and Seasons</b> Learn about rain, ice and water. Describe why the air moves. Explore snow and melting. Discover how rainbows are formed. Learn about the seasonal changes that happen in Spring and Summer. Learn about the seasonal changes that happen in Autumn and Winter.</p> <p><b>The Senses</b> Learn about the senses. Explore ways to make sounds.</p>	<p><b>Space</b> Explore outer space. Discover why rockets are important.</p> <p><b>Forces</b> Understand what happens when you push or pull something. Explore objects that sink and float.</p> <p><b>Machines</b> Explore different types of machines and mechanisms. Learn how machines make jobs easier. Discover different types of transport.</p> <p><b>Science skill focus: predicting</b> Friction train. Using ramps test out different materials attached to the ramp (bubbles wrap, tinfoil) mark how far the train travels each time. Record and evaluate your findings.</p>	<p><b>Food</b> Learn about your diet and how to stay healthy. Explore different types of vegetables. Discover different types of fruit. Learn about chicken and eggs. Discover that cows produce milk. Examine different ingredients and then weigh them to make a mixture.</p> <p><b>Science skill focus: observing</b> Evil Pea has frozen some of our toys how can we get them out? Observing the frozen Balloons closely. Talk about melting, freezing and changes in materials. Can we speed it up or slow it down? What would happen if?</p> <p><b>Science Week</b> Selection of experiments chosen with the children</p>	<p><b>Plants</b> Discover that plants are living things. Learn about plants and where they come from. Explore how to look after plants.</p> <p><b>Insects and Invertebrates</b> Learn about insects and invertebrates. Discover where insects and invertebrates live. Observe them in their habitats. Describe what a habitat is.</p> <p><b>Life Cycle:</b> Butterfly: observe caterpillars in class From Egg to Chicks</p>	<p><b>Environmental Awareness</b> <i>Boogie Bear</i> Through this story begin to explore the idea of global warming and endangered animals. Discuss the affects of our actions on the environment.</p> <p><b>Science skill focus: classifying</b> Investigating magnets. Classify objects as magnetic or non-magnetic</p> <p><b>Light and Dark</b> Learn about different types of light sources. Experiment with lenses and creating shadows.</p> <p><b>Environmental Awareness</b> <i>Rocket Says Clean Up!</i> Through this story discuss the importance of look after our environment. What do the clean up crew do and why?</p>

## Working Scientifically EYFS



<p>1</p> <p><b>Seasonal Changes throughout the year as appropriate</b></p>	<p><b>Biology: Animals including humans - animals</b></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,</li> </ul>	<p><b>Animals including humans – all about me</b></p> <ul style="list-style-type: none"> <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> </ul>	<p><b>Chemistry: Exploring everyday Materials 1</b></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, plastic, glass, metal, water, and rock</li> </ul>	<p><b>Chemistry: Exploring everyday Materials 2</b></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, plastic, glass, metal, water, and rock</li> </ul>	<p><b>Biology: Plants</b></p> <ul style="list-style-type: none"> <li>Identify and name a variety of common and wild and garden plants, including deciduous and evergreen trees</li> <li>Identify and describe the basic structure of a variety of common flowering plants,</li> </ul>	<p><b>Seasonal Changes</b></p> <ul style="list-style-type: none"> <li>Observe changes across the four seasons</li> <li>Observe and describe weather associated with the seasons and how day length varies. Working scientifically</li> </ul>
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	<p>herbivores and omnivores</p> <ul style="list-style-type: none"><li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</li></ul>		<ul style="list-style-type: none"><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>including trees</p>	
2	<p><b>Biology: Living things and their habitats</b></p> <ul style="list-style-type: none"><li>Explore and compare the differences between things that are living, dead, and things that have never been alive</li><li>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic</li></ul>	<p><b>Biology: Living things and their habitats – habitats around the world</b></p> <ul style="list-style-type: none"><li>Explore and compare the differences between things that are living, dead, and things that have never been alive</li><li>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the</li></ul>	<p><b>Chemistry: Materials</b></p> <ul style="list-style-type: none"><li>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li><li>Find out how the shapes of solid objects made from some</li></ul>	<p><b>Biology: Plants</b></p> <ul style="list-style-type: none"><li>Observe and describe how seeds and bulbs turn 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><b>Biology: Animals, including humans 2 – Life Cycles</b></p> <ul style="list-style-type: none"><li>Notice that animals, including humans, have offspring which grow into adults</li></ul>	<p><b>Biology: Animals, including humans 1 - Growth</b></p> <ul style="list-style-type: none"><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></ul>



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	<p>needs of different kinds of animals and plants, and how they depend on each other</p> <ul style="list-style-type: none"><li>• Identify and name a variety of plants and animals in their habitats, including microhabitats</li><li>• 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</li></ul>	<p>basic needs of different kinds of animals and plants, and how they depend on each other</p> <ul style="list-style-type: none"><li>• Identify and name a variety of plants and animals in their habitats, including microhabitats</li><li>• 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</li></ul>	<p>materials can be changed by squashing, bending, twisting and stretching</p>			
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### Working Scientifically Key Stage One



3/4	<b>Biology: Living Things and their Habitats</b> <ul style="list-style-type: none"> <li>Recognise that living things can be grouped in a variety of ways</li> <li>Explore and use classification keys to help group, identify and name a variety of living things in</li> </ul>	<b>Chemistry: States of Matter</b> <ul style="list-style-type: none"> <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 or research the</li> </ul>	<b>Biology: Animals including humans</b> <ul style="list-style-type: none"> <li>Describe the simple functions of the basic parts of the digestive system in humans</li> <li>Identify the different types of teeth in humans and their simple functions</li> </ul>	<b>Physics: Electricity</b> <ul style="list-style-type: none"> <li>Identify common appliances that run on electricity</li> <li>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs,</li> </ul>	<b>Physics: Sound</b> <ul style="list-style-type: none"> <li>Identify how sounds are made, associating some of them with something vibrating</li> <li>Recognise that vibrations from sounds travel through a medium to the ear</li> <li>Find patterns between the pitch of a</li> </ul>	<b>Biology: Living Things and their Habitats – Conservation</b> <ul style="list-style-type: none"> <li>Recognise that environments can change and that this can sometimes pose dangers to living things</li> </ul>
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	their local and wider environment	<p>temperature at which this happens in degrees Celsius (°C)</p> <ul style="list-style-type: none"><li>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</li></ul>	<ul style="list-style-type: none"><li>Construct and interpret a variety of food chains, identifying producers, predators and prey</li></ul>	<p>switches and buzzers</p> <ul style="list-style-type: none"><li>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</li><li>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</li><li>Recognise some common conductors and insulators, and associate metals with being good conductor</li></ul>	<p>sound and features of the object that produced it</p> <ul style="list-style-type: none"><li>Find patterns between the volume of a sound and the strength of the vibrations that produced it</li><li>Recognise that sounds get fainter as the distance from the sound source increases</li></ul>	
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## Working Scientifically lower Key Stage 2



5/6	<b>Looking after our environment</b> <ul style="list-style-type: none"> <li>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs</li> <li>Reporting and</li> </ul>	<b>Biology: Living Things and their Habitats</b> <ul style="list-style-type: none"> <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> </ul>	<b>Physics: Light</b> <ul style="list-style-type: none"> <li>Recognise that light appears to travel in straight lines</li> <li>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</li> </ul>	<b>Physics: Electricity</b> <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> </ul>	<b>Biology: Animals including Humans</b> <ul style="list-style-type: none"> <li>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</li> <li>Recognise the impact of diet, exercise, drugs and lifestyle on the way their</li> </ul>	<b>Biology: Evolution and inheritance</b> <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</li> </ul>
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	<p>presenting findings from enquiries - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <ul style="list-style-type: none"><li>Identifying scientific evidence that has been used to support or refute ideas or arguments</li><li>Using test results to make predictions to set up further comparative and fair tests</li></ul>	<ul style="list-style-type: none"><li>Give reasons for classifying plants and animals based on specific characteristics</li></ul>	<ul style="list-style-type: none"><li>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</li><li>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</li></ul>	<p>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>	<p>bodies function</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans</p>	<p>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>
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**Working Scientifically Upper Key Stage 2**

