

# YEAR 2 SCIENCE CURRICULUM FRAMEWORK



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.

AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 3
<b>STREET DETECTIVES</b>	<b>MUCK, MESS AND MIXTURES</b>	<b>LAND AHOY</b>
<p><b>Sc EM 1 Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</b></p> <p><b>Sc WS 4</b></p> <p>Children sort a selection of building materials into natural and man-made categories. Thinking about the properties of each material and why they are suitable for walls, windows, doors, fences, roofs, doors or drainpipes.</p> <p><b>Sc WS 4 Identify and classify.</b></p> <p><b>Sc P 1</b></p> <p>The children observe, photograph and identify plants found in different habitats in the locality.</p>	<p><b>Sc WS 2 Observe closely, using simple equipment.</b></p> <p>Children carry out an investigation to observe the melting process. Using materials including butter, chocolate, marshmallows, ice cream, cheese and sugar. Using their prior knowledge to predict which foods will melt and in what order.</p> <p><b>Sc WS 3 Perform simple tests</b></p> <p>Test different soap products to find out which creates the best bubbles. Make predictions before testing.</p> <p><b>Sc WS 5 Use their observations and ideas to suggest answers to questions</b></p> <p>Make ice cream in a bag using milk, ice and salt. Discuss the changes that occurred and evaluate the success of their ice cream.</p> <p><b>Sc WS 6 Gather and record data to help in answering questions.</b></p> <p>Children investigate a range of everyday materials, such as salt, wax, flour, cornflour, clay, sugar, cooking</p>	<p><b>Sc EM 1 Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Sc WS 2, 3, 4, 5, 6</b></p> <p>Children look at images of different boats identifying and naming the materials from which they are made. They explore the properties of materials such as wood, plastic, metal, glass, brick, paper and card to see which materials float and which sink.</p> <p><b>Sc EM 2 Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Sc WS 1, 2, 3, 5, 6</b></p> <p>Children explore which shapes float best by moulding and reshaping lumps of plasticine. First testing whether the lump floats, then squashing, squeezing and bending the plasticine, to form a variety of shapes to see if they can make their plasticine float.</p>

	<p>oil, glitter and shaving foam to find out how each one changes when it is mixed with water. They make predictions before mixing and create a simple table to record their results.</p> <p><b>Sc EM 2 Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</b> Children make a model using Playdough, writing words to describe how they are changing the shape of the playdough as they do such as 'bending' and 'twisting'.</p>	
<b>SPRING TERM 4</b>	<b>SUMMER TERM 5</b>	<b>SUMMER TERM 6</b>
<b>THE SCENTED GARDEN</b>	<b>WRIGGLE AND CRAWL</b>	<b>TOWERS, TUNNELS AND TURRETS</b>
<p><b>Sc P 1 Observe and describe how seeds and bulbs grow in mature plants.</b> Plant sweet pea seeds in eco-friendly plant pots made from newspaper and tape. Care for the seeds, placing them in a sunny spot in the classroom and watering them daily</p> <p><b>Sc P 2 Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</b> Plant fast-growing seeds and bulbs to grow a 'pizza' garden. Include ingredients such as tomatoes, basil, onions, rocket, spinach, peppers and oregano. Make a list of daily jobs that will need to be done to care for the plants.</p> <p><b>Sc WS 2 Observe closely, using simple equipment</b> Explore a range of garden herbs using all the senses. Talk about how herbs feel, smell and taste. Describe which smells they like and don't like and explain why. Order the smells according to the preference or strength.</p>	<p><b>Sc A 2 Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</b> Children take part in a 'Minibeast Hunt' to see what minibeasts they can find and recording where they find them. Children look carefully at the creatures collected using magnifying glasses.</p> <p><b>Sc WS 1 Ask simple questions and recognise that they can be answered in different ways. Sc A 2; Sc WS 2, 4, 5</b> We create a class minibeast home to enable us to keep, observe and care for a range of minibeasts. As a class, children devise a range of questions that can be arranged into the following categories: those that can be answered by immediate observation, those that need further observation or research and those that may require a test.</p> <p><b>Sc A 1 Notice that animals, including humans, have</b></p>	<p><b>Sc WS 3 Perform simple tests. Sc WS 1, 2, 5</b> As a class children investigate and look at why bridges are shaped in different ways.</p> <p><b>Sc: LT &amp; H 3 Identify and name a variety of plants and animals in their habitats, including micro habitats</b></p> <p><b>Sc LT 2 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.</b> Children learn about tunnelling animals such as moles, rabbits and badgers. They choose an animal on which to focus, discovering key facts about their lifecycles and how they are adapted for life underground.</p> <p>In addition, children construct paper chain food chains to discover where each burrowing animal is in the food chain and how different kinds of animals and plants depend on each other.</p>

<p><b>Sc WS 4 Identify and classify</b> Explore a range of smells using sensory tubs. What can they smell? What might be inside? Sort smells into those they like and those they don't like. Do the smells remind them of anything?</p> <p><b>Sc WS 5 Use observations and ideas to suggest answers to questions.</b> Match the five senses to images of body parts that we use for each sense. Imagine what it might be like to lose one or more of their senses by wearing a blindfold and trying to eat cereal, blocking their ears and trying to follow instructions or holding their nose and eating an apple or onion. Talk about what it feels like to lose a sense.</p> <p><b>Sc WS 6 Gather and record data to help in answering questions</b> Explore a range of cacti of different shapes and sizes. Group them according to their features and talk about why they have sorted them in a particular way. Find out their different features, characteristics and conditions they need to grow well. Use a range of information sources such as books, leaflets and the web, and record findings in different ways.</p>	<p><b>offspring which grow into adults. Sc WS 4</b> Children learn about the life cycle of a honey bee, including their egg, larval, pupal, and adult stages. They draw the bee's life cycle in a diagrammatic form and label accordingly, adding short captions to explain each stage.</p> <p><b>Sc WS 5 Use their observations and ideas to suggest answers to questions. Sc WS 2, 4; Sc A 2</b> Children find out how a minibeast's appearance can help it avoid being eaten. Looking at a range of camouflaged creatures, such as the peppered moth, stick insect and shield bug and contrasting these to brighter minibeasts such as butterflies.</p> <p><b>Sc LT 3 Identify and name a variety of plants and animals in their habitats, including microhabitats.</b> Explore small trees and bushes in the local environment to discover what's hiding in them. Use simple classification keys or pictures to identify species found and create a tally chart to record the different types and frequency.</p> <p><b>Sc LT 4 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.</b> Find out what animals eat butterflies, such as birds, toads and dragonflies and then learn about the creatures that in turn eat those animals. Construct a food chain to show what they have discovered.</p>	
<p><b>Working scientifically</b> Pupils are taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• asking simple questions and recognising that they can be answered in different ways</li> <li>• observing closely, using simple equipment</li> <li>• performing simple tests</li> <li>• identifying and classifying</li> <li>• using their observations and ideas to suggest answers to questions</li> </ul>		

- gathering and recording data to help in answering questions