

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
STREET DETECTIVES	MUCK, MESS AND MIXTURES	TOWERS, TUNNELS AND TURRETS
<p>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.</p> <p>Sc WS 4</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>Sc WS 4 Identify and classify.</p> <p>Sc P 1</p> <p>The children observe, photograph and identify plants found in different habitats in the locality.</p>	<p>Sc WS 6 Gather and record data to help in answering questions.</p> <p>Sc WS 3, 5</p> <p>Children investigate a range of everyday materials, such as salt, wax, flour, cornflour, clay, sugar, cooking 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>Sc EM 2 Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p> <p>Sc WS 3, 5</p> <p>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> <p>Sc WS 2 Observe closely, using simple equipment.</p>	<p>Sc WS 3 Perform simple tests. Sc WS 1, 2, 5</p> <p>As a class children investigate and look at why bridges are shaped in different ways.</p> <p>Sc: LT & H 3 Identify and name a variety of plants and animals in their habitats, including micro habitats</p> <p>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.</p> <p>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</p>

	<p>Sc WS 3, 5, 6</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>	depend on each other.
SPRING TERM 4	SUMMER TERM 5	SUMMER TERM 6
LAND AHOY	UNDER CONSTRUCTION	WRIGGLE AND CRAWL
<p>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</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>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</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>Sc: LT & H 3 Identify and name a variety of plants and animals in their habitats, including micro habitats</p> <p>Children find out about the plants and animals found within the school environment, identifying them through using their leaves and other features.</p> <p>Sc P1 Observe and describe how seeds and bulbs grow into mature plants</p> <p>Sc P2 Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p> <p>Building on previous sessions on plants which grow in the local habitat children investigate why plants grow well here. Setting up an investigation to find out how much light and water plants need in order to grow.</p>	<p>Sc A 2 Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>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>Sc WS 1 Ask simple questions and recognise that they can be answered in different ways. Sc A 2; Sc WS 2, 4, 5</p> <p>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>Sc A 1 Notice that animals, including humans, have offspring which grow into adults. Sc WS 4</p> <p>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>Sc WS 5 Use their observations and ideas to suggest answers to questions. Sc WS 2, 4; Sc A 2</p> <p>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>
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Working scientifically

Pupils are taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking simple questions and recognising that 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