

## Science



### Educational Programme – Understanding the World

Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children’s personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children’s vocabulary will support later reading comprehension.

	Before starting reception, children should be able to...	During reception, the children will learn to...	By the end of reception, children should be able to...
Understanding the World	<p>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>• Begin to make sense of their own life-story and family’s history.</li> <li>• Explore how things work.</li> <li>• Plant seeds and care for growing plants.</li> <li>• Understand the key features of the life cycle of a plant and 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> <li>• Talk about the differences between materials and changes they notice.</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>The Natural World</p> <ul style="list-style-type: none"> <li>• Explore the natural world around them, making observations and drawing pictures of animals and plants.</li> <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>
C&L	<p>Understand ‘why’ questions, like: “Why do you think the caterpillar got so fat?”</p>	<p>Learn new vocabulary.</p> <ul style="list-style-type: none"> <li>• Ask questions to find out more and to check what has been said to them.</li> <li>• Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen.</li> <li>• Use new vocabulary in different contexts.</li> </ul>	<p>Listening Attention &amp; Understanding</p> <ul style="list-style-type: none"> <li>• Make comments about what they have heard and ask questions to clarify their understanding.</li> </ul>

PSED	Make healthy choices about food, drink, activity and tooth brushing.	Know and talk about the different factors that support their overall health and wellbeing: regular physical activity, healthy eating, tooth brushing, sensible amounts of 'screen time', having a good sleep routine, being a safe pedestrian.	PSED - Managing Self <ul style="list-style-type: none"><li>• Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</li></ul>
------	--	--	---

# Science

## Transition from Reception to Y1

Relevant Early Learning Goals	Y1 National Curriculum Objective
<p><b>Understanding the World: The Natural World</b></p> <ul style="list-style-type: none"><li>• Explore the natural world around them, making observations and drawing pictures of animals and plants.</li><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>Working Scientifically</b></p> <p>During year 1 and 2, pupils should be 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><li>• Gathering and recording data to help in answering questions.</li></ul> <p><b>Plants</b></p> <ul style="list-style-type: none"><li>• Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</li><li>• Identify and describe the basic structure of a variety of common flowering plants, including trees.</li></ul> <p><b>Animals, Including Humans</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, herbivores and omnivores.</li><li>• Describe and compare the structure of common animals (fish, amphibians, reptiles, birds and mammals, including pets.)</li><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>Everyday Materials</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><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>Seasonal Change</b></p> <ul style="list-style-type: none"><li>• Observe changes across the four seasons.</li></ul>

• Observe and describe weather associated with the seasons and how day length varies.