



Seamer and Irton CP School

Science in EYFS



In planning and guiding what children learn, practitioners must reflect on the different rates at which children are developing and adjust their practice appropriately, referring to the Characteristics of Effective Teaching and Learning These are:

- playing and exploring – children investigate and experience things, and ‘have a go’;
- active learning – children concentrate and keep on trying if they encounter difficulties, and enjoy their achievements for their own sake;
- creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

In addition, the Prime Areas of Learning (Personal, Social and Emotional Development, Communication and Language and Physical Development) underpin and are an integral part of children’s learning in all areas.

EYFS The Natural World Educational Programme (Statutory)

Development Matters	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.	
	Understanding the World (pg. 111-113)	<ul style="list-style-type: none"> • Explore the natural world around them • Describe what they see, hear and feel whilst outside • Recognise some environments that are different from the one in which they live • Understand the effect of changing seasons on the natural world around them
Early years foundation stage statutory framework	Understanding the World: ELG: The Natural World (pg 15)	<p>Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Explore the natural world around them, making observations and drawing pictures of animals and plants; • 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; • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter

EYFS Science Skills

Biology

- Create opportunities to discuss how we care for the natural world around us.
- Offer opportunities to sing songs and join in with rhymes and poems about the natural world.
- After close observation, draw pictures of the natural world, including animals and plants.
- Name and describe some plants and animals children are likely to see, encouraging children to recognise familiar plants and animals whilst outside.
- Teach children about a range of contrasting environments within both their local and national region.
- Model the vocabulary needed to name specific natural features of the world.
- Share non-fiction texts that offer an insight into contrasting environments.
- Listen to how children communicate their understanding of their own environment and contrasting environments through conversation and in play.

Chemistry

- Observe and interact with natural processes, such as ice melting, light travelling through transparent material, an object casting a shadow, a magnet attracting an object.

Physics

- Observe and interact with natural processes, such as a sound causing a vibration, light travelling through transparent material, an object casting a shadow, a magnet attracting an object and a boat floating on water.

EYFS Understanding of the World: The Natural World Overview

	Scientific Knowledge: Key Questions	Vocabulary	Working Scientifically	Enrichment and Engagement activities
Humans (Biology)	<p>1. What are the main parts of my body? 2. Why do we need to brush our teeth?</p> <p>Identify and name the basic parts of the human body.</p> <p>Understand that humans can look different.</p> <p>Understand that we need to brush our teeth to look after them.</p>	<p>Head Arms Legs Face Eyes Hair Mouth Nose Teeth</p>	<ul style="list-style-type: none"> Asking simple questions and recognising that they can be answered in different ways. Observing closely, using simple equipment. Performing simple tests. Identifying and classifying. 	<p>Visit from a dentist</p> <p>Come as a superhero day</p>
Space (Physics)	<p>1. What can we find in space?</p> <p>The sun is a star.</p> <p>We live on planet Earth.</p> <p>There are 8 planets in our solar system.</p>	<p>Solar system Sun Moon Stars Planet Earth</p>	<ul style="list-style-type: none"> Using their observations and ideas to suggest answers to questions. Gathering and recording data to help in answering questions. 	<p>Link to nativity – stars, earth etc</p>

<p>Light (Physics)</p>	<p>1. What is light? 2. How can we make a shadow?</p> <p>The sun is a source of light. The moon is not a source of light.</p> <p>Recognise that we need light in order to see things and that dark is the absence of light.</p> <p>Recognise that shadows are formed when the light from a light source is blocked</p>	<p>Light Dark Shadow Sun</p>		<p>Link with Nativity</p>
<p>Everyday Materials (Chemistry)</p>	<p>1. How can we sort objects into groups based on their material? 2. What materials can be recycled?</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and paper</p>	<p>Material Wood Plastic Glass Metal Paper Recycle</p>		<p>Setting up a recycling centre for school materials</p>
<p>Changing state (Chemistry)</p>	<p>1. What will happen to water when it is put into the freezer? 2. What can we do to stop the ice from melting?</p> <p>Recognise that water freezing and melting is a reversable process.</p> <p>Understand that temperature affects the change of state.</p>	<p>Solid Liquid Change Melt Freezing Heating Water Ice</p>		<p>Trip to the sea life centre to meet the penguins.</p> <p>SJT workshops</p>

<p>Floating and Sinking (Physics)</p>	<p>1. What will happen when we put something in the water?</p> <p>Predict whether objects will float or sink.</p> <p>Understand that some objects sink and some objects float.</p> <p>Recognise that objects that float push against the water.</p>	<p>Float Sink Push</p>		<p>RNLI visit</p>
<p>Plants (Biology)</p>	<p>1. What does a plant need to grow? 2. What are the different parts of a plant?</p> <p>Understand that plants need water and light to grow.</p> <p>Identify and name the basic parts of a plant</p>	<p>Plant Stem Leaf Roots Seed Water Light</p>		<p>Access to forest school/outdoor classroom</p> <p>Seed planting linked to Jack and the beanstalk</p> <p>Visit to Hill Top Farm</p>