



Subject Overview

Science

Reception

EYFS The Natural World Educational Programme (Statutory)

*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.*

**Knowledge and Skills**

- 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.

**ELG: The Natural World (Statutory)**

Children at the expected level of development will:

- 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.

	Autumn			Spring			Summer		
	Theme	Key Objectives (Chris Quigley)	Knowledge and Skills	Theme	Key Objectives (Chris Quigley)	Knowledge and Skills	Theme	Key Objectives (Chris Quigley)	Knowledge and Skills
Year 1	Seasonal changes	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To understand the Earth’s movement in space</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how seasons affect changes in weather</li> <li>• Understand how animals and humans adapt to seasonal changes.</li> <li>• Understand how changes in the</li> </ul>	Materials	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To investigate materials</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and name different materials and their properties.</li> <li>• Test different materials and observe changes.</li> <li>• Test materials and draw conclusions</li> </ul>	Animals including humans	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To understand animals and humans</li> <li>➤ To investigate</li> </ul>	<ul style="list-style-type: none"> <li>• Name and label different parts of the body - specifically those associated with the senses.</li> <li>• Use the senses to explore the world and recognise which</li> </ul>

			<p>seasons affect plants.</p> <ul style="list-style-type: none"> <li>Collect and record data about the different seasons.</li> </ul>			<p>about how they could be used.</p> <ul style="list-style-type: none"> <li>Understand recycling.</li> </ul>		<p>sound and hearing</p> <ul style="list-style-type: none"> <li>To understand light and seeing</li> </ul>	<p>parts of my body allow me to do this.</p> <ul style="list-style-type: none"> <li>Identify groups of animals: amphibians, mammals, fish, birds, reptiles and invertebrates.</li> <li>Group carnivores, herbivores and omnivores.</li> </ul>
<b>Year 2</b>	<b>Animals including humans</b>	<ul style="list-style-type: none"> <li>To work scientifically.</li> <li>To understand animals and humans.</li> </ul>	<ul style="list-style-type: none"> <li>Describe the basic needs of animals and humans.</li> <li>Understand how animals change as they grow.</li> <li>Understand why humans need to exercise and have an understanding of how to improve diet.</li> </ul>	<b>Living things and their habitats</b>	<ul style="list-style-type: none"> <li>To work scientifically</li> <li>To understand Living things.</li> </ul>	<ul style="list-style-type: none"> <li>Identify living things and their life processes.</li> <li>Understand habitats and identify the plants and animals within those habitats.</li> <li>Draw a simple food chain and understand how the relationships between living things.</li> </ul>	<b>Plants</b>	<ul style="list-style-type: none"> <li>To work scientifically</li> <li>To understand plants</li> </ul>	<ul style="list-style-type: none"> <li>Understand plants and their lifecycles.</li> <li>Make observations of living things.</li> <li>Understand the roles of different parts of a flowering plant.</li> </ul>
<b>Year 3</b>	<b>Rocks (fossils and soils)</b>	<ul style="list-style-type: none"> <li>To work scientifically</li> <li>To investigate materials</li> <li>To understand evolution and inheritance</li> </ul>	<ul style="list-style-type: none"> <li>Understand and compare the different uses of rocks.</li> <li>Know the terms igneous, sedimentary and metamorphic.</li> <li>Understand how soil is formed and know different types of soil.</li> <li>Understand the process of fossilisation.</li> </ul>	<b>Light</b>	<ul style="list-style-type: none"> <li>To work scientifically</li> <li>To investigate light and seeing.</li> </ul>	<ul style="list-style-type: none"> <li>Understand that light is required to see.</li> <li>Understand how light is reflected.</li> <li>Know that light can be dangerous.</li> <li>Understand how shadows are formed.</li> </ul>	<b>Forces and magnets</b>	<ul style="list-style-type: none"> <li>To work scientifically</li> <li>To understand movement, forces and magnets</li> </ul>	<ul style="list-style-type: none"> <li>Identify forces as push and pulls.</li> <li>Understand gravity.</li> <li>Understand the difference between weight and mass.</li> <li>Identify friction as a force and to identify air resistance and water resistance as related forces.</li> <li>Identify simple mechanisms and explain them.</li> <li>Understand magnets.</li> </ul>
<b>Year 4</b>	<b>Animals including humans</b>	<ul style="list-style-type: none"> <li>To work scientifically</li> <li>To understand</li> </ul>	<ul style="list-style-type: none"> <li>Identify the digestive system and its parts.</li> </ul>	<b>Sound</b>	<ul style="list-style-type: none"> <li>To work scientifically</li> <li>To investigate</li> </ul>	<ul style="list-style-type: none"> <li>Identify the properties of sound and how we are able to hear.</li> </ul>	<b>Electricity</b>	<ul style="list-style-type: none"> <li>To work scientifically</li> <li>To understand</li> </ul>	<ul style="list-style-type: none"> <li>Understand mains and battery power and identify common electrical appliances.</li> </ul>

		animals and humans	<ul style="list-style-type: none"> <li>• Construct food chains and relate them to herbivores, carnivores and omnivores.</li> <li>• Identify why teeth should be kept healthy.</li> <li>• Identify parts of the human skeleton.</li> </ul>		sound and hearing	<ul style="list-style-type: none"> <li>• Set up enquiries regarding sound and record findings in a variety of scientific ways.</li> <li>• Understand how sound can be prevented from traveling.</li> </ul>		electrical circuits	<ul style="list-style-type: none"> <li>• Create and draw simple series circuits.</li> <li>• Investigate changes that can be made to circuits using different components.</li> <li>• Understand conductors and insulators.</li> </ul>
<b>Year 5</b>	<b>Earth and Space</b>	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To understand the Earth's movement in space</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the shape of the Sun, the Moon and the Earth.</li> <li>• Name the planets in our solar system in the correct order.</li> <li>• Understand ideas of planetary movement.</li> <li>• Explain day and night and the different seasons.</li> </ul>	<b>Properties and changes of materials</b>	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To investigate materials</li> </ul>	<ul style="list-style-type: none"> <li>• Identify solids, liquids and gases and identify how materials change from one state to another.</li> <li>• Identify the different stages of the water cycle.</li> <li>• Describe and test the properties of materials, including solubility and conductivity.</li> <li>• Understand reversible and irreversible changes.</li> <li>• Understand how to separate mixtures.</li> </ul>	<b>Living things and animals including humans</b>	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To investigate living things</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how flowers are pollinated.</li> <li>• Understand sexual and asexual reproduction.</li> <li>• Understand life cycles of different animals: Insects, amphibians (metamorphosis), marsupials and monotremes, and birds.</li> </ul>
<b>Year 6</b>	<b>Light</b>	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To investigate light and seeing</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how light allows us to see.</li> <li>• Understand refraction and colours within light.</li> <li>• Investigate shadows.</li> </ul>	<b>Evolution and inheritance</b>	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To understand evolution and inheritance</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the development of evolutionary ideas.</li> <li>• Understand human evolution and where the evidence comes from to support this.</li> <li>• Understand inherited traits, adaptation and</li> </ul>	<b>Animals including humans</b>	<ul style="list-style-type: none"> <li>➤ To work scientifically</li> <li>➤ To understand animals and humans</li> </ul>	<ul style="list-style-type: none"> <li>• Understand and explain the functions of the heart, lungs and circulatory system.</li> <li>• Test and record ideas about healthy diet and exercise.</li> <li>• Ensure that investigations identify variables and suitable predictions</li> </ul>

						artificial and natural selection. <ul style="list-style-type: none"><li>• Understand genes and DNA.</li></ul>			and conclusions are drawn from presented data.
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