

Science in the Early Years - Understanding the World

Understanding the world involves guiding children to make sense of the natural environment and the processes within it. Through observation, exploration, and discussion, children begin to notice patterns, similarities, and differences in the world around them. They learn to question, predict, and talk about what they see, developing curiosity and the early foundations of scientific enquiry.

Engaging with hands-on experiences such as observing weather changes, caring for plants and animals, or exploring materials helps children understand key scientific concepts through play and practical discovery. Listening to a broad range of non-fiction texts, rhymes, and stories also supports the development of scientific vocabulary and conceptual understanding. Enriching children's language at this stage is essential, as it enables them to articulate their ideas, describe phenomena, and make sense of new learning in later years.

At Sunnyside Primary Academy, we recognise that pupils' scientific understanding begins well before formal subject teaching in Year 1. Our Reception curriculum provides the foundation for scientific knowledge, enquiry skills, and vocabulary, fully aligned with Development Matters (2021) and the Early Learning Goals within the Understanding the World area of learning, particularly The Natural World.

Through our topic-based EYFS curriculum, children are encouraged to explore living things, materials, and the environment through first-hand experiences and guided investigation. These early scientific skills observing, questioning, classifying, comparing, predicting, and describing change are deliberately developed and extended within the Primary Knowledge Curriculum (PKC) Science sequence from Year 1 to Year 6.

Development Matters	Statutory Framework: Early Learning Goals
<p>Children in Reception will be learning to:</p> <ul style="list-style-type: none"> • Explore the natural world around them. • Describe what they see, hear and feel while 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. 	<p><u>The Natural World</u></p> <p>By the end of the EYFS, 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.

Transition from Reception to Year 1

Early Learning Goals	KS1 National Curriculum Objectives
<p><u>Understanding the World: The Natural World</u></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 	<p>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"> • 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

Our Reception Curriculum

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	All About Me	Space	Superheroes	Dinosaurs	Minibeasts	Fairy Tales
Science: The Natural World	<ul style="list-style-type: none"> - Identify body parts and their functions. - Talk about the human senses and how they help us explore the world. - Recognise similarities and differences between themselves and others. 	<ul style="list-style-type: none"> - Explore day and night, light and dark. - Observe the sky and changes in the seasons. - Discuss why we need light and what happens when it is dark. 	<ul style="list-style-type: none"> - Explore materials and their properties (stretchy, shiny, waterproof). - Investigate which materials are best for particular purposes (e.g. superhero capes). 	<ul style="list-style-type: none"> - Learn about living things from the past and compare with animals today. - Understand that some animals no longer exist. - Sort and classify animals by features. 	<ul style="list-style-type: none"> - Observe insects and small creatures in the environment. - Explore life cycles and habitats. - Understand the importance of caring for living things. 	<ul style="list-style-type: none"> - Explore materials linked to story settings (e.g. building houses for the Three Little Pigs). - Observe changes such as melting, dissolving, or floating. - Discuss weather and seasonal features in story contexts.
Links to PKC	<ul style="list-style-type: none"> - Year 1: Animals including humans – body parts, senses, and growth. - Year 2: Human needs for survival. - Lays foundation for biological 	<ul style="list-style-type: none"> - Year 1: Seasonal changes – day length and weather patterns. - Year 5: Earth and Space – movement of the Earth and Moon. 	<ul style="list-style-type: none"> - Year 1: Everyday materials – properties and uses. - Year 2: Materials and their suitability. - Foundation for working scientifically 	<ul style="list-style-type: none"> - Year 2: Living things and habitats. - Year 3: Fossils and rocks – evidence of past life. - Introduces adaptation, evolution, and 	<ul style="list-style-type: none"> - Year 2: Habitats and food chains. - Year 4: Living things – classification and environments. - Year 5–6: Life cycles and adaptation. 	<ul style="list-style-type: none"> - Year 1–2: Materials and physical properties. - Year 3–4: States of matter. - Year 5–6: Reversible and irreversible changes.

	understanding of humans.	- Introduces observation and pattern recognition.	through testing and observation.	classification concepts.	- Strengthens observation and recording skills.	- Develops understanding of cause and effect through practical exploration.
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