



Understanding the World: The Natural World - Science

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.

Understanding the World: EYFS Statutory Educational Programme

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.

EYFS The Natural World – Development Matters (non statutory)

Children aged 3 and 4 will be learning to (preschool):

Use all their senses in hands-on exploration of natural materials.

Provide interesting natural environments for children to explore freely outdoors.

Explore collections of materials with similar and/or different properties.

Make collections of natural materials to investigate and talk about

Talk about what they see, using a wide vocabulary

Examples may include: contrasting pieces of bark, different types of leaves and seeds, different types of rocks, different shells and pebbles from the beach

Plant seeds and care for growing plants.

Understand the key features of the life cycle of a plant and an animal.

Examples may include: plant seeds and bulbs, observe growth and decay over time, observe an apple core going brown and mouldy over time

Begin to understand the need to respect and care for the natural environment and all living things.

Help children to care for animals and take part in first-hand scientific

Talk about the differences between materials and changes they notice.

Examples: opportunities to change materials from one state to another. Suggestions: cooking – combining different ingredients, and then cooling or heating (cooking) them, melting – leave ice cubes out in the sun, see what happens when you shake salt onto them, explore how different materials sink and float, explore how you can shine light through some materials, but not others, investigate shadows.

Explore and talk about different forces they can feel.

For example: how the water pushes up when they try to push a plastic boat under it, how they can stretch elastic, snap a twig, but cannot bend a metal rod, magnetic attraction

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Children in Reception will be learning to:

Explore the natural world around them.

Examples include: after close observation, draw pictures of the natural world, including animals and plants. Observe and interact with natural processes, such as ice melting, 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

Describe what they see, hear and feel whilst outside.

Examples include: children describing and commenting on things they have seen whilst outside, including plants and animals, name and describe some plants and animals children are likely to see, encouraging children to recognise familiar plants and animals whilst outside.

Understand the effect of changing seasons on the natural world around them.

Examples include: guide children's understanding by draw children's attention to the weather and seasonal features. Provide opportunities for children to note and record the weather. Throughout the year, take children outside to observe the natural world and encourage children to observe how animals behave differently as the seasons change.

ELG: The Natural World (Statutory)

End of Reception: 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.

Scientific Enquiry (Linked to the Characteristics of Effective Teaching and Learning)

- Encourage interactions with the outdoors to foster curiosity and give children freedom to touch, smell and hear the natural world around them during hands-on experiences. • Encourage focused observation of the natural world.
- Listen to children describing and commenting on things they have seen whilst outside, including plants and animals.
- Encourage positive interaction with the outside world, offering children a chance to take supported risks, appropriate to themselves and the environment within which they are in.
- Provide children with have frequent opportunities for outdoor play and exploration.

Key Vocabulary:

Science, experiment, investigation, test, explore, curious, why, senses, world, plants (leaf, stem, root, flower, seeds), animals, humans, materials, see through, push/pull (linked to magnets), magnetic, attract, repel, float, sink, melt, freeze, solid, liquid, gas, natural, change, grow, decay, rot, environment, cycle, same, different, similar, changes, now, then