

EYFS Understanding The World / Science Overview

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.

EYF\$ 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.

EYF\$ 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.

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Scientific Enquiry (also linked to CofETL)

- Provide children with have frequent opportunities for outdoor play and exploration.
- 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.

Development Matters

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.

Assessment

- Can children talk about and draw what they can see?
- Can children describe their environment and comment on contrasting environments from books?
- Can children describe what changes in each season?

Vocabulary


Science, experiment, investigation, test, why, senses, world, plants (leaf, stem, root, flower, seeds), animals, humans, materials, see through, push/pull (linked to magnets), natural, change, grow, decay, rot, environment

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.

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|  | | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| Theme | All about Me | Tales & Celebrations | Superheroes | Amazing Animals | Come Outside | Ocean Adventures | |
| Focus | <i>Growth and change (humans)/ Autumn</i> | <i>Autumn/ Senses in the natural world/ Light</i> | <i>Senses, changes of state and forces</i> | <i>Spring/ Observing, finding out about animals, caring for them/ habitats/ features.</i> <i>Contrasting Environments</i> | <i>Growing plants, life cycles, naming and grouping.</i> | <i>Floating and sinking, sea life/ oceans/ Summer</i> | |
| To inform 'I know that statements' | <p>I know about the life cycle of a human.</p> <p>I recognise and can talk about how I have changed since I was a baby.</p> <p>I recognise similarities, differences, pattern and change in relation to people.</p> <p>I know the earth has different seasons and can talk about changes I can see in autumn.</p> | <p>I know there are 4 different seasons and I discuss what I see in autumn.</p> <p>I know the human body has 5 senses</p> <p>I use my senses to describe what I see, hear, feel, touch, smell on an outside walk of school environment.</p> <p>I can talk about the area I live in- (forest school & weather)</p> | <p>I can talk about changes I can see in winter.</p> <p>I can know that when Ice is heated it melts/ when water is cold it freezes.</p> <p>I know that not all places are the same Hot places/ cold places</p> <p>I can describe another environment (Antarctica/ Artic)</p> | <p>I know how to care for animals.</p> <p>I know I need to care for the natural environment and all living things.</p> <p>I know and can describe some features of our own local environment and how they might contrast from another (jungle/ savannah/ desert).</p> <p>I know the Earth has season and can talk about changes I can see in spring.</p> | <p>I can explore the natural world using my senses.</p> <p>I know that plants have different parts.</p> <p>I know some similarities and differences in relation to plants.</p> <p>I know how to care for growing plants.</p> <p>I know minibeasts are a type of animal.</p> | <p>I can know that and can explore materials that float and those that sink.</p> <p>I can create my own floating/sinking object.</p> <p>I can talk about similarities and differences in relation to sea creatures.</p> <p>I can make observations of animals and plants.</p> | |

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| | | I talk about what I can see outside/ materials/ plants | <p>I know that the absence of light is dark</p> <p>I can explore with torches to make different shadows and colours.</p> | <p>I know that materials can change Gas/ Liquid/solid</p> <p>I recognise that some materials are magnetic and some are not.</p> | | I know not all animals are the same (minbeast) | <p>I know that the natural world has different environments (Oceans)</p> <p>I know that the earth has 4 seasons I can talk about what I see in summer.</p> |
| | <p><i>Key Celebrations/ events</i></p> <p><i>Additional Science opportunities</i></p> | <p>Seasonal art: Autumn Changing materials- mixing paints/ saltdough. Observations about people & pets- 'my family' Explore school- local area</p> | <p>Diwali- light Firework/ bonfire- light/dark Explore forest school & local area Christmas- senses walk. Christmas- Light/dark.</p> | <p>Seasonal: Winter Contrasting locations Chinese New Year- senses/ Valentine's Day Holi- light and dark National Science Day</p> | <p>Seasonal – Spring Plants- new growth Baby animals- Real egg? Chicks/ duckling visit? Easter- new life/ natural world/ melting</p> | <p>Outside area-St George's Day. Bee day Queen's Jubilee- planting sensory garden walk?</p> | <p>Seasonal art Summer Father's Day Crafts Women in engineering day World Ocean day</p> |

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