



Science EYFS Curriculum Overview

The Big Picture

In EYFS, children will have lots of opportunities to explore and understand the world around them. In the children's guided provision, they are encouraged to make sense of their physical world and their community through opportunities to explore, observe and find out about the environment.

Children will be encouraged to work scientifically, and adults will be on hand for support and challenge if needed. Stimulus related to their interests and topics will be placed tactically within the environment to encourage further exploration of scientific enquiry. Children will be supported to articulate their ideas, predictions and results from their own scientific enquiry through questions to prompt. The children will be encouraged to make observations, ask questions about why things happen and how they work. They will be given the opportunity to manipulate different things and observe the effects.

Children will have access to a range of objects and tools that will allow them to work scientifically.

- Leaves, conkers, pinecones, flowers, a range of toys to explore floating and sinking, magnifying glasses, bug catching equipment etc.

They will be given the opportunity to explore some scientists and will be inspired to work scientifically. They will look at what a scientist is and how they have changed our world today!

What do we already know?

Children may have come from other EY settings and may have some understanding of/ know how to...

- Use magnifying glasses to look through
- Explore playing in the water, dropping items to see if they go to the bottom
- Water plants



Development matters EYFS curriculum objectives

We are scientists through...

Communication and Language

3/4 Year olds: - Understand 'why' questions, like: "Why do you think the caterpillar got so fat?"

Reception: - Learn new vocabulary. - Ask questions to find out more and to check what has been said to them. - Articulate their ideas and thoughts in well-formed sentences. - Describe events in some detail. - Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen. - Use new vocabulary in different contexts.

ELG: Listening, attention and Understanding: - Make comments about what they have heard and ask questions to clarify their understanding.

Physical Development

3 / 4 Year olds: - Make healthy choices about food, drink, activity and toothbrushing.

Reception: Know and talk about the different factors that support their overall health and wellbeing: regular physical activity, healthy eating, toothbrushing, sensible amounts of 'screen time', having a good sleep routine, being a safe pedestrian.

Understanding the World

3/4 year olds: - Use all their senses in hands-on exploration of natural materials. - Explore collections of materials with similar and/or different properties. - Talk about what they see, using a wide vocabulary. - Begin to make sense of their own life-story and family's history. - Explore how things work. - Plant seeds and care for growing plants. - Understand the key features of the life cycle of a plant and an animal. - Begin to understand the need to respect and care for the natural environment and all living things. - Explore and talk about different forces they can feel. - Talk about the differences between materials and changes they notice.

Reception - Explore the natural world around them. - Describe what they see, hear and feel while they are outside. - Recognise some environments that are different to the one in which they live. - Understand the effect of changing seasons on the natural world around them.

ELG: The Natural World - 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.

Personal, Social, Emotional Development

ELG: Managing Self: - Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.

Specific unit objectives

Animals

- To know the names of basic animals (farm animals, pets)
- To know that animals change overtime (babies- adults, caterpillars-butterfly)

Materials:

- To know an item that floats
- To know an item that sinks

Seasons and weather:

- To explore signs of some of the seasons
- To explore the outdoor area and describe using our senses (what can they hear/see/smell?)

Plants:

- To explore growing a plant/flower
- To know that a plant needs watering to stay alive

Types of scientific enquiry

- Changes overtime
- Observations
- Grouping

Key vocabulary and understanding for concept connectors

plant, flower, grow, soil, spring, winter, rain, hot, cold, baby, caterpillar, butterfly, hear, see, smell, float, sink, bottom, top

Sticky Knowledge

- We start as a baby then we grow to an adult.
- To know the song heads shoulders knees and toes.
- Floating is when something stays at the top of the water.
- Sinking is when something goes to the bottom of the water.
- It is hot in the summer.
- It is cold in the winter.
- Plants need water to grow.

Key Questions

- Can they name some basic animals?
- Can they explain (very simply) how some animals change overtime?
- Can they show something that would sink?
- Can they show something that would float?
- Can they discuss a sign of a season?
- Can they say that a plant needs watering?

Key Scientists