

This draws upon guidance from Development Matters (2021) – specifically the ‘Understanding the World’ area of learning.

Powerful Knowledge		
3-4 years	Reception	ELG
<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - 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. 	<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.

Characteristics of Effective Teaching and Learning:

Children in EYFS develop their ‘Characteristics of Effective Teaching and Learning’ through their independent learning and adult guided activities.

The characteristics which show subject specific skills and are documented through observations and photographs in work books and learning journeys.

The following can be seen as complementing future Science learning:

- Realise that their actions have an effect on the world, so they want to keep on repeating them.
- Plan and think ahead about how they will explore or play with objects.
- Make independent choices.
- Bring their own interest and fascinations into early years settings. This helps them to develop their learning.
- Respond to new experiences that you bring to their attention.
- Show goal-directed behaviour.
- Keep on trying when things are difficult.
- Sort materials.
- Solve real problems.
- Use pretend play to think beyond the ‘here and now’.
- Know more, so feel confident about coming up with their own ideas.

How we achieve ‘high quality scientific outcomes’ for our EYFS children:

Our Curriculum

- Our children visit the Yorkshire Wildlife Park. Whilst there, they focus on African, Arctic and Desert animals and complete observational drawings. Further to this, recognise contrasting environments and how to help our planet by protecting habitats and beginning to explore climate change.
- Throughout the year, the children explore vibration and how this causes sound (drums, shakers etc)
- Across the academic year and during muddy puddle days, we explore the seasons (weather and plant life). We do this through art: snowflakes, blossom trees, lambs etc. Further to this, we also have a book for each season. During the Autumn specifically, we create smell pots and use natural materials to create art.
- The children study states of matter during cooking sessions and whilst examining how long it takes for an ice cube to melt. During our ‘Castles’ topic, the children will learn about ‘the upper crust’ and will create animal biscuits, chocolate apples and chocolate nests
- During ‘Feed Me, Please!’, the children label flowers and plants on our site. Further to this, they plant sunflowers and runner beans.
- During ‘Marvellous Me’, the children learn how to brush their teeth, sort foods into healthy and unhealthy and those that will be bad for our teeth. In addition, we study the importance of sleep and reduced screen time and maintaining a healthy diet (Eat Well Plate).
- We arrange for a Vet to visit school and, through our Parent Partnerships, we encourage guest speakers to join the class from scientific fields – Science is for all and it isn’t just men in white lab coats.
- We study Life-Cycles of animals that undergo metamorphosis – we either use the pond to look at the life-cycle of a frog or have caterpillars in class to explore its metamorphosis into a butterfly.
- During ‘Let’s Pretend’, we create puppet shows, exploring light and shadow and the materials best suited to the task.

Enhanced Provision

Small world and role play with props encourages children to talk about what they are learning. It gives them the opportunity to revisit their learning and apply it in different situations.

Provision (both indoor and outdoor) is regularly enhanced with new items so that children continue to be engaged (e.g. vets, dentists, healthy café etc.). Floating and sinking provision, play involving scales, the growing of sunflowers, the use of magnifying glasses and magnets and the keeping of caterpillars/butterflies enhances our provision.

Evidence of the children using enhanced provision in their own way can be found in the children’s ‘Learning Journeys’.

Continuous provision

(indoor and outdoor) examples

