

Waterville Primary School Progression of Skills and Vocabulary in Science – Early Years

Nursery Reception

EYFS Statutory Framework links related to Science:

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.

Development Matters links related to Science:

Nursery

- 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.
- Talk about the differences between materials and changes they notice.
- 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.

Reception:

- Explore the natural world around them.
- Describe what they see, hear and feel whilst outside
- Understand the effect of changing seasons on the natural world around them.

ELG's linked to Science:

Children at the expected level of development will:

- Explore the natural world around them, making observations and drawings of animals and plants.
- Understanding some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Prior Learning

Birth to two:

- To explore and talk about different textures with their fingers, feet and whole body.
- To explore the natural world, e.g. jumping in puddles, looking for worms and walking through long grass.
- To use sense to explore different textures, sounds and tastes.
- To explore the change in weather/seasons first hand.
- To plant, water and look after a seed and watch it grow.
- To know the names of my key body parts.

Vocabulary from birth to two:

Object names, match. Name, describe, senses, eyes, ears, nose, mouth, hands, sight, taste, smell, touch, weather, change, rain, sun, hot, cold, windy, cloudy, soil, seeds, plant, dig, spade, fork, gloves, grow, change, taller, body part names.

Key skills to be taught	Nursery	Resources	Reception	Resources
<p>To use magnifying glasses to support investigations around the natural world.</p> <p>To talk about what they see.</p> <p>To explore and investigate shadows.</p> <p>Practitioners to model observational and observation skills, e.g. I wonder if..?</p> <p>Practitioners to model using a range of resources to support the investigations and extend their knowledge.</p>	<ul style="list-style-type: none"> • To explore the weather first hand through the changing seasons and describe what they can see/feel. 	Labelled resources Weather station Different sizes and type of transport Push/pull transport Different tubes/guttering Different size animals Real animals e.g. caterpillars Real plants/flowers Magnifying glasses Binoculars Large potion containers, pipettes, spoons, pestle and mortar Magnets	<p>To be taught throughout the year:</p> <ul style="list-style-type: none"> • To explore the weather first hand. • To talk about and describe what you can see/feel/hear. • To name the seasons. • To identify the features/signs of each season and the associated weather. <p>Autumn:</p> <ul style="list-style-type: none"> • To know how we grow/change. • To sequence the lifecycle of a person. • To be able to name some nocturnal animals. • To explain why they are nocturnal. <ul style="list-style-type: none"> • To predict and investigate which material is the strongest/weakest to build a house with. • To reach a conclusion. • To observe and interact with natural processes of light travelling through a transparent material or shadows. • To experience shadow drawing. 	Weather station Labelled resources Different sizes and type of transport Push/pull transport Different tubes/guttering Different size animals Real animals e.g. tadpoles Real plants/flowers Magnifying glasses Binoculars Large potion containers, pipettes, spoons, pestle and mortar Magnets Torches Projector Animals from around the world Maps/atlasses
	<ul style="list-style-type: none"> • To be able to name all of my key body parts. • To use my senses and use them to explore different textures, sounds and tastes. • To understand how to care for animals. • To understand the key features of the life cycles of an animal. 	Autumn, weather, see, feel, cold, rain, snow, cloudy, windy, winter, seasons, predict, investigate, test, pull, push, further/furthest, fast/fastest, back, forward, down, slope, gradient, ice, cold, melt, thaw, warm, dripping, change, animals, number of legs, slither, crawl, creep, walk, hop, fur, smooth, scales, lifecycle, sequence, change, grow, time, weather, spring, flowers, animals, plants, see, feel, warmer, cold, rain, drizzle, cloudy, winter, compare, plant, seed, soil, water, sunlight, grow, change, flower, leaf stem, potion, mix, change, bubble, froth, foam, steam, weather, summer, hotter, sunny	<p>2 year old key vocabulary plus:</p>	<p>2 year old and nursery key vocabulary plus:</p>
	<ul style="list-style-type: none"> • To explore forces first hand and begin to learn new vocabulary e.g. How the water pushes up when you push something under it, how you can stretch elastic, snap a twig but cannot bend a metal rod and magnetic attraction and repulsion. • To explore how different materials float/sink. • To identify objects that float and sink 			<p>Spring:</p> <ul style="list-style-type: none"> • To name and talk about key parts of a lifecycle. • To sequence a lifecycle. • To talk about changes that occur during a lifecycle. <ul style="list-style-type: none"> • To be able name a range of animals and their habitats. <p>Summer:</p> <ul style="list-style-type: none"> • To predict and investigate the conditions a plant needs to grow through planting a seed. • To sequence the lifecycle of a plant. • To observe and draw plant growth over time and describe the changes that occur. <ul style="list-style-type: none"> • To know how to care for the environment/natural world. <ul style="list-style-type: none"> • To know I need to respect and care for the natural environment and living things.