



Caversham Park Primary School

Reception Curriculum

Understanding the World: Science

Key Knowledge:

Natural world / environment:

- Know and describe the 4 seasons and how the natural world changes with these, including: weather, plants and animals.
- Begin to understand how living things grow and change and the concept of a life cycle, e.g. for a butterfly/bean plant.
- Understands the need to respect and care for the natural environment and all living things.

Humans and Animals:

- Know how humans change over time, e.g. baby, toddler, child, teenager, adult, elderly person.
- Name a wide range of external human body parts
- Begin to name the 5 senses and understand their purpose
- Name and describe many animals and match them to their young

Materials:

- Know that objects are made from different materials and to name and describe some their basic properties.
- Begin to know that some materials properties make them suitable for a particular purpose
- Know that some materials can change
- Know the following processes: sinking, floating, freezing, melting.

Key Skills:

Natural world / Environment:

- Demonstrate curiosity about explore the natural world them using their senses to collect information.
- Make comments and observations about the natural world around them over time.
- Make observations of animals and plants noticing similarities, differences, patterns and changes.
- Care for living things in the environment, e.g. plants and minibeasts and begin to explain why we need to look after the natural world.

Materials:

- Begin to use everyday language to describe and compare different materials
- Match materials together based upon their type/property
- Begin to choose materials for a purpose and explain why they are suitable.
- Explore and talk about changing states (freezing/ melting, floating/ sinking) and forces (magnetism, push, pull)

Enquiry:

- Ask questions about why things happen and how things work (I wonder...)
- Provide suggestions about why things happen and how things work.
- Begin to make suggestions for how you might test an idea.
- Make simple predictions about what they think might happen next/change based on their own experiences.
- Use senses to
- Record my ideas and observations in different ways, e.g. through writing, drawing, artwork, technology.
- Sort or group different items based on given criteria or independent observations.
- Notice and comment upon scientific ideas in stories.

<p>Vocabulary: Human, animal, names of external body parts, . baby, toddler, child, teenager, adult, elderly person. Names of animals and their young, paper, fabric, metal, water, words to describe materials: e.g. rough, smooth, see-through. Float, sink, magnetic, freeze, melt. Season, autumn, spring, summer, winter, weather, words to name and describe weather. Plant, tree, bush, flower, stem, leaf, petal, root. Change, grow, healthy, life cycle.</p>	<p>Literature: Titch The Three Little Pigs Jasper's Beanstalk Ten Seeds A Tiny Seed. Non-Fiction books linked to topic. Mad about mini beasts Funnybones Oliver's Vegetables / Oliver's Fruit Salad The growing story Froggy Day The Very Hungry Caterpillar</p>	<p>Enrichment: Welly walks, Clayfield Copse, farm visits, visits from animals and linked professionals. Trip to The Lookout Discovery Centre School pond and wildlife area visits Science talk homework- question/topic to discuss at home.</p>
<p>Adult Directed:</p> <ul style="list-style-type: none"> • Whole class and small group adult directed sessions as appropriate. • Lead whole class investigations and experiments. • Share stories, books, videos, photographs that help children to develop scientific knowledge about the world around them. • Sing songs that link to the world around them. • Spontaneous opportunities: unplanned and arise from children's comments and observations e.g. spotting a rainbow, having a ladybird land on them, snow etc. 	<p>Continuous Provision:</p> <ul style="list-style-type: none"> • Adults in the provision to teach children how to observe, look closely and act a scientists as well as develop scientific concepts. • Children to help look after the plants and wildlife in the classroom environment. • Investigation station as a dedicated area for children to continue their science learning. • Bug area and mud kitchen • Bug collecting tools • Flower bed • Sand and water areas • Magnifying glasses • Cars and ramps • Height measuring chart 	<p>Enhanced Provision:</p> <ul style="list-style-type: none"> • Recording equipment • Recording sheets • Provide opportunities for children to grow plants from seed, look after them and see how they change over time. • Provide opportunity for the children to look after minibeasts and observe how they change, e.g. caterpillar project. • Provide messy play activities that enable children to explore physical processes, e.g. cornflour and water; ice melting; dissolving packing foam in water; making bubbles. • Seasonal natural objects • Develop science linked role play areas, e.g. hospital. Include photographs and vocabulary to support. • Books supporting learning topics. • Provide loose parts in a variety of materials and sorting trays • Sensory boxes.

Assessment (ELGs)

Prime Areas:

Communication & Language - Listening and Attention

- Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions.
- Make comments about what they have heard and ask questions to clarify their understanding.

Communication & Language - Speaking

- Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.
- Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate.

Personal, Social, Emotional Development:

- Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions
- Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices

Specific Areas:

Understanding the world - 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.

Progression - Cycle A

Autumn	Spring	Summer
<ul style="list-style-type: none"> • Know that they are a human • Name a wide range of external human body parts • Begin to name the 5 senses and understand their purpose • Know that they are a human • Make observations and comparisons between different humans. • Recognise, name and describe common household and farm animals and match them to their babies • Know that there are different seasons • Know that there are different types of weather • Understands the need to respect and care for the natural environment and all living things. • Make observations of animals and plants noticing similarities, differences, patterns and changes • Know that objects are made from different materials and name some of these. 	<ul style="list-style-type: none"> • Know how humans change over time, e.g. baby, toddler, child, teenager, adult, elderly person. • know that living things grow and change over time. • Choose materials for a purpose based on their properties. • Know that some materials can change • Know the following processes: sinking, floating, freezing, melting. • Name the basic parts of a plant (root, stem, leaves, petals) • Know and name the 4 seasons. • Know some simple changes and differences between the 4 seasons • Discuss when and how things grow. • Make observations of animals and plants noticing similarities, differences, patterns and changes • Understands the need to respect and care for the natural environment and all living things. 	<ul style="list-style-type: none"> • Know that plants need water to grow. • Begin to understand the concept of a life cycle, e.g. for a bean seed • Make observations of plants over time. • Care for living things in the environment, e.g. plants and minibeasts and begin to explain why we need to look after the natural world. • Begin to make suggestions for how you might test an idea. • Record my ideas and observations in different ways, e.g. through writing, drawing, artwork, technology.

<ul style="list-style-type: none"> • Know that the materials share similar properties, e.g. class is see-through. • 		
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Progression - Cycle B		
Autumn	Spring	Summer
<ul style="list-style-type: none"> • Know that they are a human • Name a wide range of external human body parts • Begin to name the 5 senses and understand their purpose • Know that they are a human • Make observations and comparisons between different humans. • Recognise, name and describe common household and farm animals and match them to their babies • Know that there are different seasons • Know that there are different types of weather • Understands the need to respect and care for the natural environment and all living things. • Make observations of animals and plants noticing similarities, differences, patterns and changes 	<ul style="list-style-type: none"> • Know how humans change over time, e.g. baby, toddler, child, teenager, adult, elderly person. • know that living things grow and change over time. • Begin to understand the concept of a life cycle, e.g. for a butterfly. • Know that plants need water to grow. • Name the basic parts of a plant (root, stem, leaves, petals) • Begin to make suggestions for how you might test an idea • Know the following processes: freezing and melting in relation to winter. • Know and name the 4 seasons. • Know some simple changes and differences between the 4 seasons • Discuss when and how things grow. • Make observations of animals and plants noticing similarities, differences, patterns and changes • Understands the need to respect and care for the natural environment and all living things. 	<ul style="list-style-type: none"> • Make observations of plants over time. • Sort items and animals into living and non-living • To know that different creatures live in different environment and name some of these. • To identify living things in our local habitat. • To know that different creatures eat different foods. • Care for living things in the environment, e.g. plants and minibeasts and begin to explain why we need to look after the natural world. • Begin to make suggestions for how you might test an idea. • Record my ideas and observations in different ways, e.g. through writing, drawing, artwork, technology.