

Reception Science Long Term Plan

Term Science Topic	Autumn 1 Humans (People who are familiar to us)	Autumn 2 Seasonal Change – Autumn	Autumn 2 Sound	Spring 1 Seasonal changes - Winter	Spring 1 Materials	Spring 2 Humans (taking care of ourselves)	Spring 2 Seasonal Changes – Spring	Spring 2 Living Things and their habitat	Summer 1 Animals (excluding humans)	Summer 1 Light	Summer 2 Animals (excluding humans)
Key vocabulary	family, Mum, Dad, Grandma, Grandad, change, grow	Autumn, hibernate, seasons, changes, weather	loud, quiet, ears, sound, traffic, sirens, voices, experiment	bird, care, environment, explore, food, water, bird scarer, survive,	water, ice, changing, freezing, frozen melting, cold	body, food, sleep, rest, screen time, exercise, energy	egg, duck, chicken, hatch, grow, change, life cycle	Bulb, seed, grow, plants, soil, water, sun	Mini beast, eyes, legs, habitat, home, insect, skeleton, wings, antennae, feelers	shadow, cloudy, sunny, light, sun, shine, shiny, dull, daylight, rainbow, colour	Africa, Savannah, elephant, giraffe, Monkey, habitat, home, describe
supplementary vocabulary		Hibernate/ sleeping		Migrate	Temperature, liquid, solid.	nutrition	quail		Invertebrate	Reflection, reflect,	
Science Substantive knowledge	<p>To be able to name and talk about members of their family.</p> <p>To be able to talk and name members of their community</p> <p>Name and describe people who are familiar to them.</p>	<p>To be able to describe the differences in weather.</p> <p>To know the changing weather is making the leaves change colour and fall off the trees.</p> <p>To observe how the leaves move in the wind/differe</p>	<p>To be able to describe different sounds.</p> <p>To identify different sounds in the outdoor environment</p> <p>To undertake a fair test.</p>	<p>To be able to name birds native to Morecambe.</p> <p>To be able to talk about how we can care for birds in the winter.</p> <p>To talk about places where birds might not be encouraged.</p> <p>To explore birds in a</p>	<p>To be able to use all senses to explore ice and frozen matter.</p> <p>To explain that water changes from a liquid to a solid when it's frozen.</p> <p>To be able to recognise that ice changes from a frozen state</p>	<p>To be able to talk about what we need to be healthy.</p> <p>To be able to talk about different types of food.</p> <p>To be able to talk about oral health and hygiene.</p>	<p>To explore and notice features of different types of egg.</p> <p>To investigate what happens to a chick egg as they grow and change.</p> <p>To be able to talk about and record the life cycle of a chicken.</p>	<p>To explore a range of bulbs and seeds and talk about what they will grow into.</p> <p>To care for plants and talk about how they grow.</p>	<p>To know a mini beast does not have a backbone and is an invertebrate.</p> <p>To be able to name a variety of mini beasts within our local habitat.</p> <p>To be able name the main features of a mini beast.</p>	<p>To be able to identify a shadow and how it is created.</p> <p>To be able to create a shadow using different materials.</p> <p>To explore rainbows and talk about them.</p>	<p>To be able to name 3 African animals.</p> <p>To describe 3 African animals.</p> <p>To describe the habitat they live in.</p>







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		<p>nt weathers (forces)</p> <p>To make objects from different materials including natural materials.</p> <p>To be able to recognise and name suitable clothing for the change in weather.</p>		<p>contrasting environment</p>	<p>back to a liquid when heated.</p> <p>To explore materials can change over time and in different conditions.</p>				<p>To know what a habitat is and where some mini beasts.</p>		
	<p>PLAN</p> <p>Describe people who are familiar to us.</p>	<p>PLAN</p> <p>Play and explore outside in all seasons and in different weather</p> <p>Observe living things throughout the year (plants)</p> <p>Explore the plants in the surrounding natural environment</p> <p>Make objects from different materials including natural materials.</p>	<p>PLAN</p> <p>Listen to sounds outside and identify the source.</p> <p>Make sounds.</p>	<p>PLAN</p> <p>Explore animals in the surrounding natural environment.</p>	<p>PLAN</p> <p>Explore a range of material, including natural material.</p> <p>Observe, measure and record how material change when heated and cooled.</p> <p>Compare how materials change over time and in different conditions.</p>	<p>PLAN</p> <p>Learn how to take care of themselves.</p>	<p>PLAN</p> <p>Observe living things throughout the year</p>	<p>PLAN</p> <p>Observe living things throughout the year</p>	<p>PLAN</p> <p>Name and describe animals that live in different habitats.</p> <p>Describe different habitats</p>	<p>PLAN</p> <p>Explore shadows</p> <p>Explore rainbows</p>	<p>PLAN</p> <p>Name and describe animals that live in different habitats</p> <p>Describe different habitats</p> <p>Recognise some environments that are different to the one in which they live.</p>

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	Birth to 5 Comments and asks questions about our familiar world.	Birth to 5 Comments and asks questions about aspects of the natural world Talks about why things happen Develop an understanding of growth, decay and changes over time	Birth to 5 Comments and asks questions about aspects of their familiar world.	Birth to 5 Looks closely at similarities, differences, patterns and change in nature. Talks about the features of their own immediate environment and how environments might vary from one another.	Birth to 5 Knows about similarities and difference in relation to places, objects, materials and living things	Development matters Know and talk about the different factors that support their overall health and wellbeing.	Development matters Understand the effect of changing seasons on the natural world around them. Explore the natural world around them	Development matters Explore the natural world around them	Development Matters Explore the natural world around them.	Development Matters Understand the effect of changing seasons on the natural world around them.	Development Matters Recognise some environments that are different from the one in which they live. Explore the natural world around them
High Quality Texts											

Working Scientifically:

Plan		Do			Review	
Ask questions and plan an enquiry 	Set up an enquiry 	Observe and measure 	Record 	Interpret and report 	Evaluate 	
Show curiosity and ask questions: Ask questions to find out more and to check they understand what has been said to them. (Communication and language)	Make direct comparisons Identify, sort and group: Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. (Communication and language) Show resilience and	Make observations using their senses and simple equipment Explore the natural world around them. (Understanding the world) Describe what they see, hear and feel whilst outside. (Understanding the world) Develop their small motor skills	Record their observations by drawing, taking photographs, using sorting rings or boxes and on simple tick sheets: Connect one idea or action to another using a range of connectives. (Communication and language) Describe events in some detail.	Use their observations to help them to answer their questions: Listen to and talk about selected non-fiction to develop a deep familiarity with new knowledge and vocabulary. (Communication and language) Connect one idea or action to another using a range of connectives. (Communication and language) Describe events in some detail. (Communication and language)		

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	perseverance in the face of challenge. (Personal, social and emotional development)	so that they can use a range of tools competently, safely and confidently. (Physical development) Count objects, actions and sounds. (Mathematics)	(Communication and language)	Compare length, weight and capacity. (Mathematics)
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Education Programme	<p>Understanding the World 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 fire-fighters. 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.</p>
Characteristics of Effective Learning	<ul style="list-style-type: none"> • 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 achievements • Creating and thinking critically - children have and develop their own ideas, make links between ideas, and develop strategies for doing things
Early Learning Goal	<p style="text-align: center;">ELG: The Natural World Children at the expected level of development will:</p> <p style="text-align: center;">Explore the natural world around them, making observations and drawing pictures of animals and plants;</p> <p style="text-align: center;">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</p> <p style="text-align: center;">Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>