

Inglewood Nursery and Infant School - Vertical progression – Understanding the World – The world - Science overview							2025-2026
Progression of knowledge							Progression of skills
Focus	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Early Years
<p>Nursery-Little Fawns</p> <p>Planning in the moment- lots of opportunities explored through the children’s interests.</p>	<p>Introduce new words based on Autumn/objects talk about the weather.</p> <p>Explore new and familiar experiences e.g. Grass, leaves, puddles etc... Start to talk about some of the things they see in the outdoors.</p> <p>Shows curiosity and interest when experiencing nature (mud, puddles etc).</p>	<p>Enjoys stories that include nature (birds, bees, snails etc).</p> <p>Plays with small world based on own experiences (farm yard, shop).</p>	<p>Introduce new words based on Winter/objects talk about the weather.</p> <p>Starts to talk about some of the things they see in the outdoors.</p> <p>Explore new and familiar experiences e.g. Grass, leaves, puddles etc...</p>	<p>Introduce new words based on Spring talk about the weather. Look at and explore new life- plants growing. Naming animals and their young.</p> <p>Observe what animals do.</p> <p>Starts to talk about some of the things they see in the outdoors.</p> <p>Look closely as small items and creatures.</p>	<p>Explore new and familiar experiences e.g. Grass, leaves, puddles etc... during nature walks.</p> <p>During the walks we will model vocabulary and support inquiry skills.</p> <p>Look at animal life.</p> <p>Explore materials with different properties and explore natural materials, indoors and outside.</p>	<p>Introduce new words based on Summer/objects talk about the weather.</p>	<p>Understands who, what, where in simple questions. (Und: Range 4)</p> <p>Beginning to understand why and how questions. (Und: Range 5)</p> <p>Understands questions such as who, why, when, where and how. (Und: Range 6)</p> <p>Beginning to ask simple questions (Speaking Range 3)</p> <p>Use a variety of questions (Speaking Range 4)</p> <p>Use talk to explain what is happening and anticipate what may happen next. (Speaking: Range 5)</p> <p>Extends vocabulary by grouping and naming and exploring new words. (Speaking Range 6)</p> <p>Looks closely as small items and creatures. (M&H Range 3)</p> <p>Manipulates a range of tools and equipment. (M&H Range 5)</p> <p>Use simple tools to effect changes to materials. (M&H Range 6)</p> <p>Begin to arrange items in their own patterns. (Maths Range 3)</p> <p>Creates their own patterns</p>
<p>Nursery-Little Owls</p> <p>Planning in the moment- lots of opportunities explored through the children’s interests.</p>	<p>Seasons</p> <p>Look at the changes in Autumn, learn new vocabulary. Autumn walk. Can talk about some of the things they have seen/observed.</p> <p>Comment and ask questions about aspects of their familiar world such as the place where they live or the natural world including seasonal objects.</p> <p>The human body</p> <p>Name basic parts of the human body.</p>	<p>Senses</p> <p>Science is led from the interests of the children and cultural events including; potion making (exploring mixing liquids) and pumpkin investigations when using the senses.</p> <p>Planting</p> <p>A pictorial introduction to growing: seeds, water, sun, plant (Enormous Turnip)</p>	<p>Seasons</p> <p>Make observations and comment on Winter and how the weather changes. Investigate ice (freezing/melting). Use vocabulary such as frost, snow, icicles. Discuss the effects of colder weather on animals and humans (Keeping warm)</p>	<p>Look at the changes in weather during spring. Notice and comment on new Life, buds, shoots, blossom, flowers, lambs, tadpoles, chicks, ducklings etc.</p> <p>Planting seeds and care for plants. Comments & asks questions about aspects of their familiar world- observing the seeds/plants. Understand the key features of the life cycle of a plant and an animal. Link to the life cycle of a frog.</p>	<p>Can talk about some of the things they have seen/observed in the growing station (vegetables and plants). They will focus on seeds, where they come from and what they need to grow. Link to Lifecycle of a sunflower seed.</p> <p>Naming and tasting common fruit and vegetables using the senses. Ask questions such as What does it taste like? And What does it smell like?</p> <p>Focus on minibeasts through story and rhyme. Look for minibeasts outdoors. Set up a garden for the minibeasts. The children will learn some simple minibeast facts.</p>	<p>Look at the changes in the weather.</p> <p>What the heat does to our bodies, ice lollies etc...</p> <p>What the environment looks like- Comments & asks questions about aspects of their familiar world such as the place where they live or the natural world.</p> <p>Can talk about some of the things they have seen/observed. Talk about the seaside and what they might find.</p> <p>Explore the seaside using the senses.</p>	<p>Understands who, what, where in simple questions. (Und: Range 4)</p> <p>Beginning to understand why and how questions. (Und: Range 5)</p> <p>Understands questions such as who, why, when, where and how. (Und: Range 6)</p> <p>Beginning to ask simple questions (Speaking Range 3)</p> <p>Use a variety of questions (Speaking Range 4)</p> <p>Use talk to explain what is happening and anticipate what may happen next. (Speaking: Range 5)</p> <p>Extends vocabulary by grouping and naming and exploring new words. (Speaking Range 6)</p> <p>Looks closely as small items and creatures. (M&H Range 3)</p> <p>Manipulates a range of tools and equipment. (M&H Range 5)</p> <p>Use simple tools to effect changes to materials. (M&H Range 6)</p> <p>Begin to arrange items in their own patterns. (Maths Range 3)</p> <p>Creates their own patterns</p>

<p>Reception</p>	<p>Seasons Look at the changes in Autumn, learn new vocabulary- 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. Notice and discuss patterns and changes in nature.</p> <p>Senses The children will explore the natural world around them using sight, touch, sound, smell and taste. They will be able to identify which part of the body they are using for each aspect. This will be done through listening walks (talking about what we can hear) and making gingerbread men to explore the other senses. The provision will be enhanced to allow children to explore all 5 senses. Limit senses through the use of a feely bag.</p>	<p>What has changed? The children will explore simple changes practically. Explore what happens when melting chocolate. They will have the opportunity to discuss the changes they observe and what happens after it has been left to set. This block of learning will give the children a foundational knowledge of materials which they can build on in year 1.</p>	<p>Seasons Talk about how the weather changes. 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. Notice and discuss patterns and changes in nature. Discuss how in winter the weather can be cold, freezing temperatures. Talk about what can keep us warm when it is cold outside. Explore polar climates and find out what characteristics help the animals to survive.</p> <p>Introduce the word 'hibernation' and what animals do to prepare.</p>	<p>Seasons Look at the changes in weather during spring. Explore new life in plants and animals. What happens? 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. Notice and discuss patterns and changes in nature.</p> <p>The children will plant and care for seeds. They will observe the changes overtime.</p> <p>Introduce the idea of sustainability and create a wormery or a compost heap. Explore how worms keep the soil healthy.</p>	<p>New Life- Life cycles. Making observations and drawing pictures of animals and plants. Learn about the life cycle of an insect. Know what an insect is. Makes observations of animals and plants and explains why some things occur and talk about changes</p> <p>Animals Learn about living things which are animals. Name different types of animals</p>	<p>Summer Look at the changes in the weather. 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. Notice and discuss patterns and changes in nature. Observe, find out about and identify features in the place they live and in.</p> <p>Seasons Learn about rainbows and seasonal changes in spring and summer. Walking rainbow</p> <p>The Sea- Linking to animals What lives in the sea? Explore facts about sharks.</p>	<p>showing some organisation and regularity. (Maths Range 5) Spots patterns in everyday life and beginning to identify the pattern rule. (Maths Range 6) Closely observes what</p>
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	<p>the changes they see.</p> <p>Senses and bodies Talk about the similarities and differences between them and their friends and well as looking at photos of children. To know about and name body parts. Can describe what different body parts do. Explore how our bodies change. Think about how we are similar and different. To know the names of the senses. Can describe what each of our senses does. Explore how to make sounds.</p>	<p>Recognise types of weather Discuss ways to be safe in different types of weather</p>		<p>Explore their local environment and talk about the changes they see.</p> <p>Planting Discuss how plants are living things and talk about where they come from & how to look after them. To know what a plant looks like Can name different parts of a plant Understand how plants are made and grow</p>			<p>animals, people and vehicles do. (The World Range 2) Is curious and interested to explore new and familiar experiences in nature. (The World Range 3) Notices detailed features of objects in their environment. (The World Range 4) Can talk about things they have observed such as plants, animals and natural objects. (The World Range 4) Talk about why things happen and how things work. (The World Range 5) Comments and asks questions about aspects of their world. (The World Range 5) Looks closely at similarities, differences, patterns and change in nature and different materials. (The World Range 6) Makes observations of animals and plants and explains why some things occur and talk about changes. (The World Range 6)</p>
<p>Year 1</p>	<p>Humans and Autumn Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p> <p>Seasonal changes - Autumn Children collect data during autumn. They describe and record</p>	<p>Materials and Winter Materials Children will explore everyday materials – wood, plastic, glass and metal. They will explore rock. Children will explore objects and materials. Children will understand melting and freezing.</p>	<p>Planting and Animals Planting Begin an enquiry over time. Explore growth and change throughout the year.</p> <p>Animals Children will learn about mammals, birds, fish, amphibians and reptiles. They will compare</p>	<p>Caring for our planet Seasonal change- Spring Caring for our Planet Enquiry Question – Why is it important to care for our planet? How can we care for our planet?</p> <p>Science Week Visits planning and invite parents / experts into school to</p>	<p>Planting and plants Planting B Explore how seeds planted in planting A block have changed over time. Retrieval - recap parts of a plant and correct vocabulary used. Plants Children will identify and name a variety of common wild and</p>	<p>Planting C – Children will explore how the seeds they planted in the Spring have grown. They will observe and record changes in growth.</p> <p>Growing and Cooking Enquiry Question – Where does my food come from?</p>	<p>KS1 Statutory requirements from NC: During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> Asking simple questions and recognising that they can be

	<p>the changes in weather over a week and comment on how this may change the clothing that is appropriate for each day. They also discuss how daylight is gradually decreasing and nights have become longer.</p>	<p>Children will explore floating and sinking. Children will ask the scientific question – Does it absorb water? Children will investigate materials.</p> <p>Seasonal Change - Winter In this small step, children gather and collect data during winter. They describe and record the changes in weather over a week and comment on how this may change the clothing that is appropriate for each day. They also discuss how the amount of daylight received in winter is less and the nights are longer. Earlier in the Autumn term, children gathered and recorded data in autumn. Once children have gathered data during winter, they should compare similarities and differences between the two seasons.</p>	<p>and group animals. Children will identify and name a variety of animals that are carnivores, herbivores and omnivores.</p>	<p>be interviewed.</p> <p>Seasonal Change In these two steps, children look at seasonal changes in spring. Remind them that a year is split into four seasons – spring, summer, autumn and winter. Children have previously learnt about autumn and winter and now explore changes in spring. Encourage them to make comparisons between the seasons based on weather patterns, the amount of daylight received and changes in plant and animal life</p>	<p>garden plants and plant and tree parts. They will be able to name plants in their local area. Children will be able to identify and name Deciduous and Evergreen trees and locate trees in the local area.</p>	<p>What have I planted and grown this year? Seasonal changes – Summer In these 3 steps, children look at seasonal changes in summer. Enquiry Question – What are the main changes in each season?</p>	<p>answered in different ways</p> <ul style="list-style-type: none"> • Observing closely, using simple equipment • Performing simple tests. • Identifying and classifying. • Using their observations and ideas to suggest answers to questions • Gathering and recording data to help in answering questions. <p>Asking & answering questions: Use everyday language/begin to use simple scientific words to ask or answer a scientific question. Making predictions: Begin to say what might happen in an investigation. Making Observations: Observe objects, materials and living things and describe what they see. Equipment and measurements: Use simple, nonstandard equipment and measurements in a practical task. Identifying and Classifying: Sort and group objects, materials and living things, with help, according to simple observational features. Engaging in practical enquiry (investigating): Follow instructions to complete a simple test individually or in a group.</p>
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<p>Year Two</p>	<p>Animals including humans needs for survival Notice that animals, including humans, have offspring which grow into adults Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p>	<p>Materials Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Test if the material is waterproof.</p> <p>Discuss how we can reduce the plastic waste in our school.</p>	<p>Living things and their habitats Explore and compare the differences between things that are living, dead, and things that have never been alive Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other Identify and name a variety of plants and animals in their habitats, including microhabitats Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food</p>	<p>Living things and their habitats continued</p> <p>Plants (light and dark) Observe and describe how seeds and bulbs into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Explore what happens to a plant in light and dark conditions.</p>	<p>Plants bulbs and seeds Sorting what is a bulb and what is a seed. Planting.</p> <p>Growing up Lifecycle of humans, mammals, amphibians and butterflies. What is different and what is the same.</p>	<p>Growing up continued</p> <p>Bulbs and seeds Findings from planting</p> <p>Growing up Creating a butterfly Diary</p> <p>Wildlife Exploring what wildlife does for us and what we can do to help the wildlife</p>	<p>Asking & answering questions: Suggest ideas, ask simple questions and know that they can be answered/investigated in different ways including simple secondary sources, such as books/video clips. Making predictions: To make simple predictions. Making Observations: Observe something closely and describe changes over time. Equipment and measurements: Use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out simple tests. Identifying and Classifying: Decide, with help, how to group materials, living things and objects, noticing changes over time and beginning to see patterns. Engaging in practical enquiry (investigating): Do things in the correct order when performing a simple test and begin to recognise when something is unfair. Recording and reporting Findings: Gather data, record and talk about their findings, in a range of ways, using simple scientific vocabulary. Drawing conclusions:</p>
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	<p style="text-align: center;">COL / Critical Thinking</p> <p style="text-align: center;">PLAYING AND EXPLORING:</p> <p>Shows curiosity about objects, events and people. Engages in open-ended activity. Takes risks and learns by trial and error. Uses senses to explore the world around them.</p> <p style="text-align: center;">CREATING AND THINKING CRITICALLY</p> <p>Finds ways to solve problems and tests their ideas. Develops ideas of grouping, sequences, cause and effect. Makes links and notices patterns in experiences.</p>	<p>Working Scientifically skills are to be taught alongside the 5 types of scientific enquiry as below:</p> <p>Pattern seeking Observation over time Comparative and fair testing Identifying, classifying and grouping Researching secondary sources</p>	<p>Working Scientifically Key Vocabulary by end of KS1:</p> <p>experience observe changes patterns grouping sorting classifying compare identify (name) data measure record equipment questions test investigate/explore magnifying glass / hand lens same/different</p>
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