

Inglewood Nursery and Infant School - Vertical progression – Understanding the World – The world - Science overview							2021-2022
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...</p> <p>Starts 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>Looks closely as small items and creatures</p>	<p>Explore new and familiar experiences e.g. Grass, leaves, puddles etc...</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 showing some organisation and regularity. (Maths Range 5)</p> <p>Spots patterns in everyday life and beginning to identify the pattern rule. (Maths Range 6)</p> <p>Closely observes what</p>
<p>Nursery-Little Owls</p> <p>Planning in the moment- lots of opportunities explored through the children's interests.</p>	<p>Look at the changes in Autumn, learn new vocabulary, Autumn walk.</p> <p>Discuss hibernation.</p> <p>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</p> <p>Notices detailed features of objects in their environment.</p> <p>Explore collections of materials with similar and/or different properties</p>	<p>Comments & asks questions about aspects of their familiar world such as the place where they live or the natural world</p> <p>Begin to notice the changes in the weather.</p> <p>Explore and talk about different forces they can feel.</p>	<p>Talk about how the weather changes, look at ice- freezing and melting. How do these change?</p> <p>Can talk about some of the things they have seen/observed.</p> <p>Comments & asks questions about aspects of their familiar world such as the place where they live or the natural world</p> <p>Notices detailed features of objects in their environment.</p> <p>Explore collections of materials with similar and/or different properties</p>	<p>Look at the changes in weather during spring.</p> <p>Notice and comment on new life. Care for living things- the caterpillars.</p> <p>Planting seeds and care for plants.</p> <p>Comments & asks questions about aspects of their familiar world- observing the seeds/plants.</p> <p>Understand the key features of the life cycle of a plant and an animal. Link to growing cress and life cycle of a butterfly.</p>	<p>Can talk about some of the things they have seen/observed- ink to the growing of seeds/plants.</p> <p>Comments & asks questions about aspects of their familiar world such as the place where they live or the natural world.</p> <p>Notices detailed features of objects in their environment.</p> <p>Explore collections of materials with similar and/or different properties</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.</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 showing some organisation and regularity. (Maths Range 5)</p> <p>Spots patterns in everyday life and beginning to identify the pattern rule. (Maths Range 6)</p> <p>Closely observes what</p>
<p>Reception</p>	<p>Seasons</p> <p>Look at the changes in Autumn, learn new vocabulary- Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Understand the effect of changing seasons on the natural world around them.</p> <p>Notice and discuss patterns and changes in nature.</p> <p>Observe, find out about and identify features in the place they live and in the natural world.</p> <p>Explore their local environment and talk about</p>	<p>Space</p> <p>To know what is in Space</p> <p>Learn the names of some planets and features of Space</p> <p>To know how Space travel is made possible</p> <p>Seasons</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</p> <p>To know the names of different seasons</p> <p>State what weather is likely in different seasons</p>	<p>Seasons</p> <p>Talk about how the weather changes. Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Understand the effect of changing seasons on the natural world around them.</p> <p>Notice and discuss patterns and changes in nature</p> <p>Observe, find out about and identify features in the place they live and in the natural world.</p> <p>Explore their local environment and talk about the changes they see.</p>	<p>Seasons</p> <p>Look at the changes in weather during spring.</p> <p>Explore new life in plants and animals. What happens?</p> <p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Understand the effect of changing seasons on the natural world around them.</p> <p>Notice and discuss patterns and changes in nature</p> <p>Observe, find out about and identify features in the place they live and in the natural world.</p>	<p>New Life- Life cycles.</p> <p>Making observations and drawing pictures of animals and plants.</p> <p>Learn about the life cycle of a frog.</p> <p>Know what an insect is.</p> <p>Makes observations of animals and plants and explains why some things occur and talk about changes</p> <p>Animals</p> <p>Learn about living things which are animals.</p> <p>Name different types of animals</p>	<p>Summer</p> <p>Look at the changes in the weather.</p> <p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Understand the effect of changing seasons on the natural world around them.</p> <p>Notice and discuss patterns and changes in nature</p> <p>Observe, find out about and identify features in the place they live and in</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 showing some organisation and regularity. (Maths Range 5)</p> <p>Spots patterns in everyday life and beginning to identify the pattern rule. (Maths Range 6)</p> <p>Closely observes what</p>

	<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 Living things which are plants, plants and where they come from & how to look after plants. To know what a plant looks like Can name different parts of a plant Discuss how to look after plants Understand how plants are made and grow</p>	<p>Explore different habitats animals live in</p>	<p>the natural world. Explore their local environment and talk about the changes they see.</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>
	Animals, including humans	Living things and their habitats	Plants	Materials	Seasonal Changes	<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 answered in different ways • 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. 	
Year One	Identify and name a variety of common animals including		Identify and name a variety of common and wild and	Distinguish between an object and the material from	Observe changes across the 4 seasons Observe	<p>Asking & answering questions: Use everyday language/begin to use simple scientific</p>	

	<p>fish, amphibians, reptiles, birds and mammals Identify and name a variety of common animals that are carnivores, herbivores and omnivores Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) 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>garden plants, including deciduous and evergreen trees Identify and describe the basic structure of a variety of common flowering plants, including trees</p>	<p>which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Describe the simple physical properties of a variety of everyday materials Compare and group together a variety of everyday materials on the basis of their simple physical properties</p>	<p>and describe weather associated with the seasons and how day length varies</p>	<p>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. Recording and reporting Findings: Begin to record simple data. Talk about their findings and explain what they have found out. Drawing conclusions: Explain, with support if needed, what they think they have found out. Analysing data/Evaluating: Use every day or simple scientific language to ask and/or answer a question on given data.</p>
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<p>Year Two</p>	<p>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>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>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</p>	<p>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</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: Use simple scientific language to explain what they have found out. Analysing data/Evaluating: Identify simple patterns and/or relationships using simple comparative language.</p>
	<p>COL / Critical Thinking</p> <p>PLAYING AND EXPLORING: 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>CREATING AND THINKING CRITICALLY 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>	

