

Science -Progression of skills and knowledge

	Stepping stone 1	Stepping stone 2	Footstep 1	Footstep 2
Key Objectives	By the end of Nursery	By the end of Reception	By the end of Year One	By the end of Year Two
Working Scientifically	<ul style="list-style-type: none"> • 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. • Explore and talk about different forces they can feel. • • Talk about the differences between materials and changes they notice. 	<ul style="list-style-type: none"> • Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • • 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. 	<p>WS1 asking simple questions and recognising that they can be answered in different ways</p> <p>WS2 observing closely, using simple equipment and measurement</p> <p>WS3 performing simple tests</p> <p>WS4 identifying and classifying</p> <p>WS5 using their observations and ideas to suggest answers to questions</p> <p>WS6 gathering and recording data to help in answering questions</p>	<p>WS1 asking simple questions and recognising that they can be answered in different ways including use of scientific language from the National Curriculum.</p> <p>WS2 observing closely, using simple equipment and measurement, including changes over time.</p> <p>WS3 performing simple comparative tests</p> <p>WS4 identify, group and classify</p> <p>WS5 using their observations and ideas to suggest answers to questions, noticing similarities, differences and patterns.</p> <p>WS6 gathering, recording and communicating data and findings to help in answering questions.</p> <p>WS7 use scientific language and read and spell age-appropriate scientific vocabulary</p> <p>WS8 begin to notice patterns and relationships.</p>

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Plants	<ul style="list-style-type: none"> Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal 		<ul style="list-style-type: none"> Can identify and name a variety of common wild and garden plants, including deciduous and evergreen. Can identify and describe the basic structure of a variety of common flowering plants, including trees. 	<ul style="list-style-type: none"> Can observe and describe how seeds and bulbs grow into mature plants Can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy
Living things and their habitats	<ul style="list-style-type: none"> Begin to understand the need to respect and care for the natural environment and all living things. Understand the key features of the life cycle of a plant and an animal 		<ul style="list-style-type: none"> Can explore and compare the differences between things that are living, dead, and things that have never been alive. Can 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 	<ul style="list-style-type: none"> Can identify and name a variety of plants and animals in their habitats, including microhabitats. Can 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.

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Animals including humans			<ul style="list-style-type: none"> • Can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Can identify and name a variety of common animals that are carnivores, herbivores and omnivores • Can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). • Can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 	<ul style="list-style-type: none"> • 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.
Materials		Exploring and Using Media and Materials 40-60 <ul style="list-style-type: none"> •Experiments to create different textures. •Understands that different media can be combined to create new effects. 	<ul style="list-style-type: none"> • Can distinguish between an object and the material from which it is made • Can identify and name a variety of everyday 	<ul style="list-style-type: none"> • Can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock,

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		<ul style="list-style-type: none"> •Manipulates materials to achieve a planned effect. •Constructs with a purpose in mind, using a variety of resources. •Selects tools and techniques needed to shape, assemble and join materials they are using. <p>ELG Exploring and Using Media and Materials Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>materials, including wood, plastic, glass, metal, water, and rock.</p> <ul style="list-style-type: none"> • Can describe the simple physical properties of a variety of everyday materials. • Can compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<p>paper and cardboard for particular uses.</p> <ul style="list-style-type: none"> • Can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
To learn about seasonal changes		<p>Understand the effect of changing seasons on the natural world around them</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<ul style="list-style-type: none"> • Can observe changes across the four seasons. • Can observe and describe weather associated with the seasons and how day length varies. 	