



Progression in Science Being a SCIENTIST

	F2	Yr. 1	Yr.2
SKILLS			
Questioning	Demonstrate curiosity about the world around them.	Ask simple questions stimulated by their exploration of their world.	Ask simple questions about their experiences and observations of objects, living things or events and with help use these observations to suggest ways to discover an answer to solve a problem, recognising that some can be answered in a variety of ways.
Observing & measuring	Use senses and simple measuring equipment to explore the world around them.	Make measurements using non-standard units of measure. Observe objects, living things, events and the world around them closely, using their senses and simple equipment.	Make measurements using non-standard and standard units of measure. Use equipment, provided for observation and measuring, correctly. Observe closely.
Planning & performing tests	Respond to prompts to say what happened to objects, living things or events.	Perform simple tests to explore a question or idea suggested to them, with support.	Identify things to measure or observe that are relevant to the questions or ideas they are investigating using a simple test.
Identifying & classifying	Sort / match objects, living things and events in their own way	Recognise basic features, similarities and differences of objects or living things Sort and group objects or living things in different ways	Make comparisons between basic features or components of objects, living things or events to support identification and/ or classification Sort and group objects, living things or events on the basis of their observations and explain why.
Using evidence for conclusions	Talk about what they have found out or what they think might happen based on their own experiences and with support or prompting	Use their ideas to suggest answers to questions Say what has changed when observing objects, living things or events	Use their observations and ideas to suggest answers to questions and to make predictions Respond to suggestions to identify some evidence needed to answer a question



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Gathering & recording data	Talk to an adult about what has been found / found out	Present evidence they have collected in simple templates provided for them to help in answering questions Draw or photograph evidence and label with support	Gather and record data in appropriate ways with increasing independence to help in answering questions
Using results	With help, suggest what may happen next or might change	Respond to suggestions to connect what has been observed with possible further actions or observations	Use understanding of what has been observed or own experiences to predict outcomes of further actions or observations
Reporting on and presenting findings	Talk to an adult about what has been found / found out	Present findings in simple templates provided for them or orally Draw or photograph evidence and label with support	Report on and record findings as drawings, photographs, labelled diagrams, orally, as displays, or in simple prepared tables or charts
KEY KNOWLEDGE	<p>Children know about similarities and differences in relation to:</p> <p>Objects</p> <ul style="list-style-type: none"> Fruits and vegetables. - Dough and cooked bread. Making bigger/smaller shadows. Floating and sinking. <p>Materials</p> <ul style="list-style-type: none"> Waterproof and not waterproof. - Strong and weak Recyclable and not recyclable. How materials change when frozen or heated <p>Living things</p> <ul style="list-style-type: none"> Name some animals. Know the names of some adult and baby animals. Know what plants need to grow. Be able to match animals to their habitats. 	<p>Plants</p> <ul style="list-style-type: none"> able to name a variety of common wild and garden plants, including deciduous and evergreen trees knows the basic structure of a variety of common flowering plants, including trees <p>Animals, including humans</p> <ul style="list-style-type: none"> knows the name a variety of common animals including fish, amphibians, reptiles, birds and mammals can name a variety of common animals that are carnivores, herbivores and omnivores knows the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) knows basic parts of the human body and which part of the body are associated with each sense 	<p>Plants</p> <ul style="list-style-type: none"> knows how seeds and bulbs grow into mature plants know that plants need water, light and a suitable temperature to grow and stay healthy <p>Animals, including humans</p> <ul style="list-style-type: none"> knows that animals, including humans, have offspring which grow into adults is able to describe the basic needs of animals, including humans, for survival (water, food and air) knows the importance for humans of exercise, eating the right amounts of different types of food, and hygiene <p>Uses of everyday materials</p> <ul style="list-style-type: none"> knows the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses knows how the shapes of solid objects made from some materials can be



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		<p>Everyday materials</p> <ul style="list-style-type: none"> • knows what material an object is made from • knows the name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock • knows the simple physical properties of a variety of everyday materials • is able to compare and group together a variety of everyday materials on the basis of their simple physical properties <p>Seasonal changes</p> <ul style="list-style-type: none"> • knows the weather associated with the 4 seasons and how day length varies 	<p>changed by squashing, bending, twisting and stretching</p> <p>Living things and their habitats</p> <ul style="list-style-type: none"> • knows the differences between things that are living, dead, and things that have never been alive • knows 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 • is able to identify and name a variety of plants and animals in their habitats, including microhabitats • knows how animals obtain their food from plants and other animals, using the idea of a simple food chain, and can name different sources of food
<p style="text-align: center;">Key Vocabulary</p>	<p>General</p> <ul style="list-style-type: none"> • Natural, wild, wildlife <p>Places</p> <ul style="list-style-type: none"> • Habitats - Woodland, desert, ocean, jungle, Arctic. • Microhabitats: - Log, stone, tree, dead leaves, soil. • Seaside. <p>Objects</p> <ul style="list-style-type: none"> • Fruits & Vegetables <p>Materials</p> <p>Object, material, properties, suitable, recycling. • Waterproof, strong/weak, hard/soft.</p> <p>E.GBubble wrap, foil, plastic, fabric, paper, straw, sticks, bricks, metal, glass.</p> <p>Living things – Plants • Grow • Lifecycle: - Roots, shoots, stem, leaves, buds, flower</p>	<p>Plants</p> <p>deciduous evergreen trees plant leaves flowers blossom petals fruit roots bulb seed trunk branches stem</p> <p>Examples of common British trees and plants.</p> <p>Animals including humans</p> <p>Examples of habitats, fish, amphibians, reptiles, birds and mammals.</p> <p>Materials</p> <p>properties hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent brick, paper, fabrics, elastic, foil</p>	<p>Germination growth reproduction survival comparative test nutrition squashing, bending, twisting and stretching properties suitable/unsuitable purpose habitat micro-habitat local environment food sources shelter living things food chain</p>



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	<ul style="list-style-type: none"> •Water, light, warmth, temperature, soil, compost Animals • Adult/parents/babies Lifecycle specific vocabulary / names of mini-beasts Environment • Playground / field / Carlton hill / Nottingham. Seasons: - Spring (growth, baby animals) - Summer - Autumn (Harvest) - Winter • Weather: - Sun, rain, wind, snow, ice, frost, sleet, hail. - Cold/warm/hot • light and dark, nocturnal 	<p>Seasons Spring Summer Autumn Winter Equinox Sunrise / sunset Baby animals Hibernation Thermometer, degrees and Celsius.</p>	
<p><i>Links with Learning Powers</i></p>	<p>Being resourceful – Choosing and using equipment. Finding different ways to solve problems. Using the knowledge and skills they already know. Look at similarities and differences.</p> <p>Reciprocity – Opportunities to work in groups. Sharing equipment and ideas.</p> <p>Reflective – Thinking about what resources / information will help. What have you found out? Explain to others what they have observed / discovered.</p> <p>Resilience – when observations / results aren't as they expect the children are encouraged to see it as a positive learning experience and have a curiosity to find out why things have happened. If they have made predictions, they don't see a different result as a mistake.</p>		