



Old Buckenham Primary School & Nursery
Science Progression EYFS and Key Stage One

Area of Study	Nursery	Reception	Year One	Year Two
Plants and Living things and their Habitats	<p>EYFS Framework: Understanding the World-The Natural World</p> <ul style="list-style-type: none"> - 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. -Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 		<p>National Curriculum:</p> <ul style="list-style-type: none"> -identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. -identify and describe the basic structure of a variety of common flowering plants including trees. 	<p>National Curriculum:</p> <ul style="list-style-type: none"> -Observe and describe how seeds and bulbs grow into mature plants. - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
	Old Buckenham Primary School & Nursery:			
	<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. -Plant seeds and care for growing plants. -Understand the key features of the life cycle of a plant and an animal. -Begin to understand the need to respect and care for the natural environment and all living things. 	<ul style="list-style-type: none"> -Draw information from a simple map. Explore the natural world around them. Describe what they see, hear and feel whilst outside. Recognise some environments that are different to the one in which they live. Understand the effect of the changing seasons on the natural world around them. 	<p>Understand that some things are living and others are not living and be able to distinguish between these.</p> <ul style="list-style-type: none"> - Know that plants are living things and be able to distinguish plants from other living things - Recognise that trees and grasses are plants - Know the differences between deciduous and evergreen trees (by observation). - Identify and name a variety of common wild and garden plants, including 	<ul style="list-style-type: none"> - Know that seeds and bulbs come from plants. - Recognise that seeds from different plants are different from each other. - Be able to sort seeds from non-seeds. - Understand that seeds and bulbs have the potential to grow into plants that are the same as their parent plant. - Understand that plant growth is a long process and that plants change their appearance over time as they grow.



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			<p>deciduous and evergreen trees</p> <ul style="list-style-type: none"> - Know that plants have features in common. - Identify and name the leaf, flower, root, and stem in plant specimens, diagrams and photographs. - Know that some trees have special names for plant parts, e.g. blossom, branch, trunk. - Identify and describe the basic structure of a variety of common flowering plants, including trees. 	<ul style="list-style-type: none"> - Understand that plants can produce seeds and new plants without human intervention. - Know that when people grow plants from seeds they need to provide particular conditions. <p>Be able to name basic plant needs.</p>
	<p>Key Vocabulary: plant, leaf, stem, branch, root, bark, flower, petal, seed, berry, fruit, vegetable, bulb, plant, hole, dig, water, weed, grow, shoot, die, dead, soil, names of plants they grow</p> <p>natural, plant, leaves, seeds, conkers, acorns, twigs, bark, shells, feathers, pebbles, stones, same, different, pattern</p>	<p>Key Vocabulary: As for Nursery vocabulary and: tree, bush, herb, names of plants they see, flower, vegetable, weed, beach, forest, garden.</p>	<p>Key Vocabulary: leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud.</p> <p>Names of trees in the local area.</p> <p>Names of garden and wild flowering plants in the local area.</p> <p>weather, sunny, rainy, raining, shower, windy, snowy, cloudy, hot, warm,</p>	<p>Key Vocabulary: As for Year 1 plus: light, shade, Sun, warm, cool, water, space, grow, healthy, bulb, germinate, shoot, seedling, living, dead, never been alive, suited, suitable, basic needs, food, shelter, move, feed, water, air, survive, survival, names of local habitats (e.g. pond, woodland etc.), names of micro-habitats</p>



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			cold, storm, thunder, lightning, hail, sleet, snow, icy, frost, puddles, rainbow, seasons, winter, summer, spring, autumn, Sun, sunrise, sunset, day length	(e.g. under logs, in bushes etc.), conditions, light, dark, shady, sunny, wet, damp, dry, hot, cold, names of living things in the habitats and micro-habitats studied
Animals, Including Humans	<p>EYFS Framework: Understanding the World-The Natural World - 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>		<p>National Curriculum: -identify and name a variety of common animals including 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>National Curriculum: -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>
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	<p>Use all their senses in hands on exploration of natural materials. Begin to make sense of their own life-story and family's history. Understand the key features of the life cycle of a plant and animal. Begin to understand the need to respect and care for the natural environment and all living things.</p>	<ul style="list-style-type: none"> -Talk about members of their immediate family and community. -Name and describe people familiar to them. -Recognise some environments that are different to the one in which they live. 	<ul style="list-style-type: none"> - Identify what an animal is. - Name some animals, e.g. pets, farm and zoo animals such as cats, dogs and fish - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals - Recognise external features of animals, e.g. fur, feathers, wings, fins etc - Identify differences and similarities between animals, including pets that belong to different animal groups. - Be able to sort animals by observable features (scales, wings, beaks). - Compare external features of humans with other animals - Know that different animals eat different things. - Distinguish between the diets of carnivores, herbivores and omnivores. - Know that animals can be sorted into groups by what they eat, e.g. herbivores, 	<p>Be able to distinguish living things from non-living things or things that were once alive. - Understand that humans and other living things grow.</p> <ul style="list-style-type: none"> - Know that humans and other animals change in appearance as they grow. - Know that baby animals grow to resemble their adult parents. - Recognise typical characteristics of and name distinct phases of human growth (baby, toddler, child, teenager and adult). - Understand that all living things have the same basic needs to stay alive. - Know that animals, including humans, need to eat, drink and breathe to stay alive. - Understand that different animals eat different food. - Understand the importance for humans of
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			<p>carnivores and omnivores. - Name and identify the main human body parts (arms, legs, chest, head etc.). - Name the five senses - Identify which body part is associated with each sense touch, skin rather than hands/ fingers).</p>	<p>eating the right amount of different types of food. - Understand the consequences of insufficient exercise, poor diet and poor personal hygiene.</p>
	<p>Key Vocabulary: egg, chick, bird, caterpillar, cocoon, chrysalis, butterfly, frog spawn, tadpole, froglet, frog, grow, change, die, names of animals and their young, fur, feathers, scales, tail, wings, beak, claws, paws, hooves, swim, walk, run, jump, fly, patterns, spots, stripes, grow, change, baby, toddler, child, adult, old person, smell, taste, touch, feel, hear, see, blind, deaf</p>	<p>Key Vocabulary: names of animals, live, on land, in water, jungle, desert, North Pole, South Pole, sea, hot, cold, wet, dry, snow, ice, hair (e.g. black, brown, dark, light, blonde, ginger, grey, white, long, short, straight, curly), eyes (e.g. blue, brown, green, grey), skin (e.g. black, brown, white), big/tall, small/short, bigger/smaller, baby, toddler, child, adult, old person, old, young, brother, sister, mother, father, aunt, uncle, grandmother, grandfather, cousin, friend, family, boy, girl, man, woman</p>	<p>Key Vocabulary: head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, names of animals experienced first-hand from each vertebrate group, parts of the human body including those within the school's RSE policy, senses, touch, see, smell, taste, hear, fingers, skin, nose, ears, tongue</p>	<p>Key Vocabulary: offspring, reproduction, growth, baby, toddler, child, teenager, adult, old person, names of animals and their babies (e.g. chick/chicken, cat/kitten, caterpillar/butterfly), survive, survival, water, food, air, exercise, heartbeat, breathing, hygiene, germs, disease, food types (e.g. meat, fish, vegetables, bread, rice, pasta, dairy) living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed,</p>



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Everyday Materials	<p>EYFS Statutory Framework: Understanding the World – The Natural World</p> <ul style="list-style-type: none"> - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. <p>Expressive Arts and Design</p> <ul style="list-style-type: none"> - Creating with Materials - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories. 		<p>National Curriculum:</p> <p>Distinguish between an object and the material from which it is made.</p> <ul style="list-style-type: none"> -Identify and name a variety of everyday materials including wood, plastic, glass, metal, water, rock -Describe the simple physical properties of everyday materials. -Compare and group together a variety of everyday materials on the basis of their simple properties. 	<p>National Curriculum:</p> <p>Identify and compare the suitability of including wood, plastic, glass, metal, water, rock, paper, and cardboard for particular uses.</p> <ul style="list-style-type: none"> -find out how the shapes of solid objects made from some materials can be made by squashing, bending, twisting and stretching.
	<p>Old Buckenham Primary School & Nursery:</p>			
	<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 the differences between materials and the changes they notice 	<ul style="list-style-type: none"> -Explore the natural world around them. -Describe what they see, hear and feel whilst outside. 	<ul style="list-style-type: none"> - identify a variety of different objects. - Understand that the same object can be made from different materials. - Match objects made out of the same material. - List some common materials including solids and liquids. - Recall and understand the terms hard/soft, 	<ul style="list-style-type: none"> -Identify the properties of a variety of everyday materials - Identify and name a variety of different materials - Know that some objects are made from more than one material and identify the different materials - Understand that similarities in physical properties of different



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			<p>stretchy/stiff, shiny/dull, rough/smooth and bendy/not bendy.</p> <ul style="list-style-type: none"> - Identify materials that feel soft, hard, flexible, rough, smooth, cold, warm, brittle, blunt, sharp, stretchy, squashy, sticky and/or transparent. - Choose the correct material from a selection matching a description outlining its physical properties. - Outline differences between two different materials 	<p>materials can make them suitable for use in the same type of object.</p> <ul style="list-style-type: none"> - Explain why a certain material is suitable for an object. - Explain why a certain material is unsuitable for an object - Understand that physical forces can make materials change shape. - Identify materials that can be squashed and those which cannot.
	<p>Key vocabulary mix, stir, cook, hot, oven, microwave, change, burn, melt, hard, runny, set, freeze, freezer, cold, blended, hard, soft, bendy, stiff, wobbly, wood, plastic, paper, card, fabric</p>	<p>Key vocabulary ice, water, frozen, icicle, snow, melt, wet, cold, slippery, smooth, big, bigger, biggest, smaller, smallest, hard, soft, bendy, rigid, wood, plastic, paper, card, metal, strong, weak, hot, apply heat, waterproof, soggy, not waterproof, best, change, change back</p>	<p>Key vocabulary object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull,</p>	<p>Key vocabulary opaque, transparent, translucent, reflective, non-reflective, flexible, rigid, shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>



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			see-through, not see-through	
Seasonal Changes	EYFS Statutory Framework: Understanding the World – The Natural World - 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;		National Curriculum - observe changes across the four seasons. - observe and describe weather associated with the seasons and how day length varies.	National Curriculum Seasonal Change is not an area of study for the Year 2 National Curriculum
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	Understand the key features of the life cycle of a plant and an animal.	-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.-	- Name the four seasons. - Observe and describe the appearance of an evergreen and deciduous tree across the seasons. - Identify local plants and animals found across the seasons. - Compare differences between local plants and animals across the four seasons. - List the different types of weather. -Describe days as being longer (in time) in the summer and shorter in the winter	



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			<ul style="list-style-type: none"> - Understand weather can be recorded using symbols and recognise these. - Record observations of the daily weather using symbols on a weather chart. - Describe changes in the weather across the seasons 	
	<p>Key vocabulary grow, shoot, die, dead (Nursery - Plants) egg, chick, bird, caterpillar, cocoon, chrysalis, butterfly, frog spawn, tadpole, froglet, frog, grow, change, die, names of animals and their young (Nursery - Animals, excluding humans)</p>	<p>Key vocabulary: spring, summer, autumn, winter, seasons, sunny, cloudy, hot, warm, cold, shower, raining, storm, thunder, lightning, hail, sleet, snow, icy, frost, puddles, windy, rainbow, animals, young, plants, flowers</p>	<p>Key Vocabulary: weather, sunny, rainy, raining, shower, windy, snowy, cloudy, hot, warm, cold, storm, thunder, lightning, hail, sleet, snow, icy, frost, puddles, rainbow, seasons, winter, summer, spring, autumn, Sun, sunrise, sunset, day length</p>	
Working Scientifically			<p>National Curriculum: 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"> a. asking simple questions and recognising that they can be answered in different ways b. observing closely, using simple equipment c. performing simple tests d. identifying and classifying e. using their observations and ideas to suggest answers to questions 	



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			<p>f. gathering and recording data to help in answering questions</p>
			<p>Old Buckenham Primary School & Nursery@ asking simple questions and recognising that they can be answered in different ways</p> <ul style="list-style-type: none"> - While exploring the world, the children develop their ability to ask questions (such as what something is, how things are similar and different, the ways things work, which alternative is better, how things change and how they happen). <p>Where appropriate, they answer these questions.</p> <ul style="list-style-type: none"> - The children answer questions developed with the teacher often through a scenario. - The children are involved in planning how to use resources provided to answer the questions using different types of enquiry, helping them to recognise that there are different ways in which questions can be answered. <p>b. Observing closely, using simple equipment</p> <ul style="list-style-type: none"> - Children explore the world around them. <p>They make careful observations to support identification, comparison and noticing change.</p> <p>They use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make their observations.</p> <ul style="list-style-type: none"> - They begin to take measurements, initially by comparisons, then using non-standard units <p>c. Performing simple tests</p> <ul style="list-style-type: none"> - The children use practical resources provided to gather evidence to answer questions generated by themselves or



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			<p>the teacher. They carry out: tests to classify; comparative tests; pattern seeking enquiries; and make observations over time.</p> <p>d. Identifying and classifying</p> <ul style="list-style-type: none">- Children use their observations and testing to compare objects, materials and living things. They sort and group these things, identifying their own criteria for sorting.- They use simple secondary sources (such as identification sheets) to name living things. They describe the characteristics they used to identify a living thing. <p>e. Gathering and recording data to help in answering questions</p> <ul style="list-style-type: none">- The children record their observations e.g. using photographs, videos, drawings, labelled diagrams or in writing.- They record their measurements e.g. using prepared tables, pictograms, tally charts and block graphs.- They classify using simple prepared tables and sorting rings. <p>f. Using their observations and ideas to suggest answers to questions</p> <ul style="list-style-type: none">- Children use their experiences of the world around them to suggest appropriate answers to questions. They are supported to relate these to their evidence e.g. observations they have made, measurements they have taken or information they have gained from secondary sources.- The children recognise 'biggest and smallest', 'best and worst' etc. from their data.
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