



Science Curriculum 2023/24

Nursery						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	All about Me and Autumn	Traditional Tales	Vehicles, materials and people who help us	Growing and Changing	Under the Sea, holidays and pirates	Animals and Habitats
Working scientifically	<ul style="list-style-type: none"> • Begin to engage in open-ended activity and exploring with adult support • Talk through a problem with an adult and how they can overcome this • Talk to an adult about the resources that they would like to use. • Follow adults' lead with 'I wonder...' questions • Begin to handle tools safely such as scissors 					
Physics	<p>FORCES</p> <ul style="list-style-type: none"> • Explore and talk about different forces they can feel - pushes and pulls, exploring vehicles, prams, elastic bands, boats in water, toy on a string 		<p>MATERIALS</p> <ul style="list-style-type: none"> • Talk about the differences between materials and explore similar or different properties: wood, plastic, fabric and metal (<i>not naming or sorting at this stage</i>) • Use all their senses in hands-on exploration of natural materials: bark and wood, indoors and outside (<i>body parts associated with senses will be learnt in year 1</i>) <p>FORCES</p> <ul style="list-style-type: none"> • Explore how things work using mechanical toys - wind-up toys, pull back vehicles, turning handle toys 	<p>PLANTS/ ANIMALS INCLUDING HUMANS</p> <ul style="list-style-type: none"> • Use our senses in hands on exploration of natural materials: seeds, leaves and plants (<i>body parts associated with senses will be learnt in year 1</i>) 	<p>MATERIALS/ ROCKS</p> <ul style="list-style-type: none"> • Use our senses in hands on exploration of natural materials: different shells and pebbles from the beach (<i>body parts associated with senses will be learnt in year 1</i>) <p>FORCES</p> <ul style="list-style-type: none"> • Explore and talk about different forces they can feel - floating and sinking 	<p>LIGHT</p> <ul style="list-style-type: none"> • Exploring and creating shadows



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<p>Biology</p>	<p>ANIMALS INCLUDING HUMANS</p> <ul style="list-style-type: none"> Name and identify common body parts 	<p>PLANTS</p> <ul style="list-style-type: none"> Plant bulbs Care for growing plants Begin to understand the need to respect and care for the natural environment and living things 		<p>PLANTS</p> <ul style="list-style-type: none"> Plant seeds and bulbs, watch them grow and continue to care for them Understand the key features of the life cycle of a plant 		<p>LIVING THINGS IN THEIR HABITATS</p> <ul style="list-style-type: none"> Observe and understand the key features of animal lifecycles - caterpillars hatching and becoming butterflies (chicks every other year) <p>ANIMALS INCLUDING HUMANS</p> <ul style="list-style-type: none"> Discuss animals (pets) of their choice, focusing on what they look like
<p>Chemistry</p>			<p>STATES OF MATTER</p> <ul style="list-style-type: none"> Talk about the differences between materials – ice and the changes they notice – melting Cook and explore combining, heating and cooling ingredients 			
<p>Vocab</p>	<ul style="list-style-type: none"> push, pull head, arms, hands, fingers, legs, feet and toes 	<ul style="list-style-type: none"> bulbs, plant, soil water, grow 	<ul style="list-style-type: none"> hard, soft, rough, smooth rough, smooth, hard, soft, smell, feel, see pull, wind, turn change, icy, cold, wet, hard, warmer, melt/ melting, water change, heat, cool, cook, warmer, cooler 	<ul style="list-style-type: none"> big, small, rough, smooth, hard, soft, smell, feel, see bulbs, plant, grow, water, soil seed, grow, flower 	<ul style="list-style-type: none"> big, small, rough, smooth, hard, soft, smell, feel, see water, float, sink 	<ul style="list-style-type: none"> light, shadow life cycle, change, changing, egg, chrysalis/ cocoon, butterfly (chicks- egg, hatch, chick, hen) ears, tail, face, legs, paws



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Reception						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	My World	Celebrations	The world around me	Growing and Changing	Under the Sea	Animals and Habitats
Working scientifically	<ul style="list-style-type: none">• Engage in open-ended activity playing and exploring• Take a risk, engage in new experiences and learn by trial and error• Find ways to solve problems/ find new ways to do things/test their ideas• Handle equipment and tools effectively• Choose the resources they need for their chosen activity• Create simple representations of events, people and objects• Answer how and why questions about their experiences					



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<p>Physics</p>	<p>SEASONAL CHANGES</p> <ul style="list-style-type: none"> • Understand and talk about some important processes and changes in the natural world around them, looking at the seasons as a cycle, knowing that the weather changes in the four seasons and describing what we see, hear and feel in Autumn compared to Summer • Observe how animals behave differently as the seasons change – squirrels storing nuts and hedgehogs hibernating 	<p>LIGHT</p> <ul style="list-style-type: none"> • Explore and compare day and night • Notice light and dark places in the immediate environment • Observe and experience shadows - puppets and themselves <p>SOUND</p> <ul style="list-style-type: none"> • Explore making sounds in a variety of different ways - musical instruments and vocal 	<p>MATERIALS/ FORCES</p> <ul style="list-style-type: none"> • Name materials based on their differences including wood, plastic, fabric and metal • Observe and explore which of these materials are attracted to a magnet <p>SEASONAL CHANGES</p> <ul style="list-style-type: none"> • Understand and talk about some important processes and changes in the natural world around them, looking at the seasons as a cycle, knowing that the weather changes in the four seasons and describing what we see, hear and feel in Winter, compared to Autumn • Observe how animals behave differently as the seasons change – feeding birds in winter and migration 	<p>SEASONAL CHANGES</p> <ul style="list-style-type: none"> • Understand and talk about some important processes and changes in the natural world around them, looking at the seasons as a cycle, knowing that the weather changes in the four seasons and describing what we see, hear and feel in Spring, compared to Winter • Observe how animals behave differently as the seasons change – baby animals 	<p>MATERIALS/ FORCES</p> <ul style="list-style-type: none"> • Talk about the changes they notice for wood/ paper and plastic for example when a material is put in to water - boats <p>LIGHT</p> <ul style="list-style-type: none"> • Explore light travelling through transparent materials 	<p>SEASONAL CHANGES</p> <ul style="list-style-type: none"> • Understand and talk about some important processes and changes in the natural world around them, looking at the seasons as a cycle, knowing that the weather changes in the four seasons and describing what we see, hear and feel in Summer, compared to Spring • Observe how animals behave differently as the seasons change – minibests hatching
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<p>Biology</p>	<p>ANIMALS INCLUDING HUMANS</p> <ul style="list-style-type: none"> Name and identify common body parts Explore how their own bodies can move <p>LIVING THINGS IN THEIR HABITATS</p> <ul style="list-style-type: none"> Explore the natural world around them making observations and drawing pictures of animals and plants - squirrels, hedgehogs, trees 		<p>LIVING THINGS IN THEIR HABITATS</p> <ul style="list-style-type: none"> Know some similarities and differences (linked to habitats) between the natural world around them and contrasting environments - Arctic and Africa 	<p>PLANTS</p> <ul style="list-style-type: none"> Observe plants and trees in their immediate environment and begin to talk about what they need to grow <p>LIVING THINGS IN THEIR HABITATS</p> <ul style="list-style-type: none"> Explore the natural world around them making observations and drawing pictures of animals and plants- trees, blossom, daffodils, snowdrops, frogs, lambs and birds 		<p>LIVING THINGS IN THEIR HABITATS</p> <ul style="list-style-type: none"> Describe animals (pets and farm animals) that they have seen in stories, videos or in person, focusing on where they live, including a pig, horse, sheep, duck, rabbit, fish and hamster Know some similarities and differences (linked to habitats) between the natural world around them and contrasting environments – countryside and town Explore the natural world around them making observations and drawing pictures of animals and plants - trees, flowers, minibeasts and farm animals
<p>Chemistry</p>			<p>STATES OF MATTER</p> <ul style="list-style-type: none"> Explore and observe ice melting and solidifying 	<p>STATES OF MATTER</p> <ul style="list-style-type: none"> Explore and observe other substances (chocolate) melting and solidifying 		



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<p>Vocab</p>	<ul style="list-style-type: none"> • see, hear, feel, Summer, Autumn, weather, sun, rain, wind, colder, warmer, leaves • Autumn, hibernation, collecting, storing, food • elbows, knees, shoulders, ankles, neck • jump, turn, bend, stretch • squirrels, hedgehogs, trees 	<ul style="list-style-type: none"> • day, night, light dark, sun, moon, awake, sleep • light, window, shade • shadow, light • tap, shake, scrape, loud/ quiet, fast/ slow 	<ul style="list-style-type: none"> • hard, soft, rough, smooth • magnet, magnetic • see, hear, feel, Autumn, Winter, weather, frost, snow, ice, cold, bare branches • Winter, cold, ice, frozen, food, migration, warmer country • hot, cold, snow, ice, rain, wind, habitat • change, liquid, solid, cold, warm, melt, solidify 	<ul style="list-style-type: none"> • see, hear, feel, Spring, Winter, weather, frost, snow, ice, rain, wind, cold, buds, tweeting • Spring, hibernation and migration, warmer weather, baby animals • water, rain, light, sun • trees, blossom, daffodils, snowdrops, frogs, lambs and birds • change, liquid, solid, cold, warm, melt, solidify 	<ul style="list-style-type: none"> • transparent, light, glass, plastic • wet, dry, sink, float, push 	<ul style="list-style-type: none"> • see, hear, feel, Spring, Summer, weather, warmer, sun, green leaves, flowers, buzzing • Summer, hatching, warm, sunny, food • pig – sty, horse – stable, cow – shed, sheep – field, duck – pond, rabbit – hutch, fish – bowl, hamster – cage • houses, roads, fields, farms, rivers • trees, flowers, minibeasts and farm animals
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