



# Science Curriculum 2024/25

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"> <li>• Begin to engage in open-ended activity and exploring with adult support</li> <li>• Talk through a problem with an adult and how they can overcome this</li> <li>• Talk to an adult about the resources that they would like to use.</li> <li>• Follow adults' lead with 'I wonder...' questions</li> <li>• Begin to handle tools safely such as scissors</li> </ul>					
Physics	<p><b>FORCES</b></p> <ul style="list-style-type: none"> <li>• Explore and talk about different forces they can feel - pushes and pulls, exploring vehicles, prams, elastic bands, boats in water, toy on a string</li> </ul>		<p><b>MATERIALS</b></p> <ul style="list-style-type: none"> <li>• 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>)</li> <li>• 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>)</li> </ul> <p><b>FORCES</b></p> <ul style="list-style-type: none"> <li>• Explore how things work using mechanical toys - wind-up toys, pull back vehicles, turning handle toys</li> </ul>	<p><b>PLANTS/ ANIMALS INCLUDING HUMANS</b></p> <ul style="list-style-type: none"> <li>• 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>)</li> </ul>	<p><b>MATERIALS/ ROCKS</b></p> <ul style="list-style-type: none"> <li>• 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>)</li> </ul> <p><b>FORCES</b></p> <ul style="list-style-type: none"> <li>• Explore and talk about different forces they can feel - floating and sinking</li> </ul>	<p><b>LIGHT</b></p> <ul style="list-style-type: none"> <li>• Exploring and creating shadows</li> </ul>



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



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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"><li>• Engage in open-ended activity playing and exploring</li><li>• Take a risk, engage in new experiences and learn by trial and error</li><li>• Find ways to solve problems/ find new ways to do things/test their ideas</li><li>• Handle equipment and tools effectively</li><li>• Choose the resources they need for their chosen activity</li><li>• Create simple representations of events, people and objects</li><li>• Answer how and why questions about their experiences</li></ul>					



# Science Curriculum 2024/25

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



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