

# Curriculum Overview

Science

*Charlestown  
2022-23*

	<b>Autumn</b>	<b>Autumn</b>	<b>Spring</b>	<b>Spring</b>	<b>Summer</b>	<b>Summer</b>
<b>Nursery</b>	<p><b>Autumn</b> <b>I am Magical!</b> <b>“All about me”</b> Children experience: dough, water/foam and sand, boxes of ‘junk’, jelly/foods. They make observations of what is in the natural area during autumn time. Children talk about the weather during autumn.</p>	<p><b>Autumn</b> <b>Toys</b> <b>“Let’s Play”</b> Children make observations about familiar animals that might be pets (e.g cat, dog, rabbit, hamster, fish, mice/rodents). They make observations about common fruits and vegetables. Children use simple, descriptive vocabulary (soft, hard, see through, bendy, rough, smooth, wet, dry) when talking about toys and other materials. Children talk about weather during winter.</p>	<p><b>Spring</b> <b>Transport</b> <b>“How will we get there?”</b> Children observe and discuss materials, with similar and/or different properties. They find out how things work and talk about it. Children talk about water in the environment. They talk about seasonal weather.</p>	<p><b>Spring</b> <b>Storytellers</b> <b>“Can you tell me a story?”</b> Children notice how spring changes into summer. They understand the need to respect and care for the natural environment and all living things.</p>	<p><b>Summer</b> <b>Animals</b> <b>“On the Farm”</b> Children talk about farm animals . They recognise similarities and differences between mummies and babies. Children make observations of common minibeasts, noticing where they live.</p>	<p><b>Summer</b> <b>Water, Water Everywhere</b> <b>“Under the Sea”</b> Children make observations of what floating and sinking looks like. They notice change, including, melting in the sun and ‘drying up’. Children observe what growing up might look like and explain how parents care for babies.</p>
<b>Reception</b>	<p><b>Autumn</b> <b>Ourselves</b> <b>Autumn / Trees</b> Children talk about the natural world around them (including observing</p>	<p><b>Autumn</b> <b>Autumn / Trees</b> <b>Humpty Dumpty</b> Children talk about the natural world around them (including observing</p>	<p><b>Spring</b> <b>Winter /Animals</b> <b>in my Garden</b> Children talk about the natural world around them (including observing</p>	<p><b>Spring</b> <b>Come Outside</b> <b>Spring/Farm</b> Children talk about the natural world around them (including observing</p>	<p><b>Summer</b> <b>Ticket to Ride</b> Children talk about the natural world around them (including observing seasonal</p>	<p><b>Summer</b> <b>Snow and Ice</b> <b>Summer / Fruits</b> Children talk about the natural world around them (including observing</p>

	seasonal change). They observe weather changes from summer into autumn and how it makes us feel (hot, cold, sweaty etc).	seasonal change). They observe weather changes from autumn into spring and how it makes us feel (hot, cold, sweaty etc). They make observations for which materials can protect an egg.	seasonal change). They observe weather changes and how it makes us feel (hot, cold, sweaty etc). Children observe a range of different environments and which animals live there.	seasonal change). They observe weather changes and how it makes us feel (hot, cold, sweaty etc). Children observe some signs of spring such as the growth of daffodils, snowdrops, dandelions, daisies, buttercups. They observe real life plants and draw them. Children observe that seeds grow into plants and vegetables. They observe that food changes when it's cooked (solid – hard, liquid – runny).	change). They observe weather changes and how it makes us feel (hot, cold, sweaty etc). Children observe how vehicles move (push or pull)	seasonal change). They observe weather changes and how it makes us feel (hot, cold, sweaty etc). Children observe animals that live in similar places and different places. They use their senses (smell, touch, taste, sight) to identify fruit. Children notice and describe signs of summer.
<b>Year 1</b>	<b>Autumn Plants &amp; Seasonal Changes</b> Children observe and identify plants and their different parts. They make observations about the current seasons and make comparisons with others.	<b>Autumn Plants &amp; Seasonal Changes</b> Children observe and identify plants and their different parts. They make observations about the current seasons and make comparisons with others.	<b>Spring Plants &amp; Seasonal Changes</b> Children observe and identify plants and their different parts. They make observations about the current seasons and make comparisons with others.	<b>Spring Plants &amp; Seasonal Changes</b> Children observe and identify plants and their different parts. They make observations about the current seasons and make comparisons with others.	<b>Summer Plants &amp; Seasonal Changes</b> Children observe and identify plants and their different parts. They make observations about the current seasons and make comparisons with others.	<b>Summer Plants &amp; Seasonal Changes</b> Children observe and identify plants and their different parts. They make observations about the current seasons and make comparisons with others.

	<p><b>Autumn Animals Including Humans</b></p> <p>Children explore different parts of their bodies and link to their senses. They look at animals which are carnivores, herbivore and omnivores.</p>	<p><b>Autumn Everyday Materials</b></p> <p>Children identify properties of different types of materials.</p>	<p><b>Spring Animals Including Humans</b></p> <p>Children identify animals which are within the 5 types of vertebrates.</p>	<p><b>Spring Everyday Materials</b></p> <p>Children create questions and investigate different materials.</p>	<p><b>Summer Animals Including Humans</b></p> <p>Children review their prior learning and create questions to investigate.</p>	<p><b>Summer Revision and Crest Challenges</b></p>
<b>Year 2</b>	<p><b>Autumn Living Things and Their Habitats</b></p> <p>Children research and observe different habitats and microhabitats and the plants and animals that live there.</p>	<p><b>Autumn Plants</b></p> <p>Children plant seeds and bulbs and make observations.</p>	<p><b>Autumn/Spring Animals Including Humans</b></p> <p>Children identify what animals need to survive, animals and their offspring and the importance of food and hygiene.</p>	<p><b>Spring Uses of Everyday Materials</b></p> <p>Children identify properties of materials and complete enquiries to test the suitability of materials.</p>	<p><b>Summer Plants</b></p> <p>Children complete enquiries to identify how plants keep healthy.</p>	<p><b>Summer Revision and Crest Challenges</b></p>
<b>Year 3</b>	<p><b>Autumn Plants</b></p> <p>Children learn about parts of a plant and pollination and seed dispersal.</p>	<p><b>Autumn Animals Including Humans</b></p> <p>Children learn about nutrition and the function of our skeleton and muscles.</p>	<p><b>Autumn/Spring Rocks</b></p> <p>Children complete soil enquiries and identify properties of rocks. The learn about the process of fossilisation.</p>	<p><b>Spring Light</b></p> <p>Children identify how light is needed to see and how materials can affect light travelling, including reflection. They recognise dangers posed by the sun.</p>	<p><b>Spring/Summer Forces &amp; Magnets</b></p> <p>Children investigate how surfaces affect movement. They complete enquiries with magnets identifying how they react with different materials and understanding the role of their poles.</p>	<p><b>Summer Plants</b></p> <p>Children observe how water travels through plants and complete enquiries to identify the requirements for life and growth.</p>

<p><b>Year 4</b></p>	<p><b>Autumn Living Things and Their Habitats</b> Children explore classification and identify ways environments can pose dangers to living things.</p>	<p><b>Autumn/Spring Animals Including Humans</b> Children learn about the digestive system and food chains.</p>	<p><b>Spring States of Matter</b> Children explore solids, liquids and gases and identify the role of the water cycle.</p>	<p><b>Spring/Summer Sound</b> Children identify sound being a vibration and complete enquiries which explore pitch, volume and how distance affect sounds.</p>	<p><b>Summer Electricity</b> Children identify appliance that run on electricity. Children create circuits and identify the basic parts of a circuit. They explore conductors and insulators.</p>	<p><b>Summer Revision and Crest Challenges</b></p>
<p><b>Year 5</b></p>	<p><b>Autumn Living Things and Their Habitats</b> Children identify differences in the life cycle of animals and the process of reproduction in some animals and plants.</p>	<p><b>Autumn Animals Including Humans</b> Children describe the changes as humans develop to old age.</p>	<p><b>Spring Properties of Materials</b> Children sort materials based on their properties and plan enquires to identify particular uses of materials.</p>	<p><b>Spring Changes of Materials</b> Children plan enquiries to identify how to separate materials, learn about reversible and irreversible changes and identify chemical changes.</p>	<p><b>Summer Forces</b> Children learn about the effects of the force, gravity. They plan enquiries to identify the effects of friction, air &amp; water resistance. They identify the benefits of levers, pulleys and gears.</p>	<p><b>Summer Earth and Space</b> Children learn about the movements of planets in our solar system. They identify the movement of the moon in relation to our planet and the sun and understand how day and night occurs.</p>
<p><b>Year 6</b></p>	<p><b>Autumn Living Things and Their Habitat</b> Children use and create classification systems using specific characteristics to support their reasoning.</p>	<p><b>Autumn/Spring Animals Including Humans</b> Children identify the basic parts and functions of the circulatory system. They learn about transportation of nutrients and water in some animals and complete enquiries to</p>	<p><b>Spring Evolution and Inheritance</b> Children recognise how fossils provide information about living things from millions of years ago. They recognise offspring have characteristics from both</p>	<p><b>Spring/Summer Electricity</b> Children learn and use electrical symbols in circuit diagrams. They plan enquiries to investigate the effects of changes to components in simple circuits.</p>	<p><b>Summer Light</b> Children learn that light travels in a straight line and its reflection allows us to see. Children complete enquiries to identify why shadows have the same shape as the objects that cast them.</p>	<p><b>Summer Revision and Crest Challenges</b></p>

		identify the effects of diet, exercise, drugs and lifestyle on the way bodies function.	parents and learn about adaptation and its relationship with evolution.			
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