

## **Charleton Church of England Academy: Science Overview**

### **Our Overarching Curriculum Intent**

Our curriculum is the beating heart of our academy and is rooted in John 10:10.

*“I came that they might have life and live it to the full”*

Our children will flourish through experiencing a knowledge-rich curriculum which is both broad and balanced and fosters a love of learning, enabling all children to make connections and be well prepared for the next stage of their education.

### **Curriculum Intent for Science**

As scientists, our children will experience a sense of awe and wonder of their environment and the natural and physical phenomena of the world they live in. They will understand how scientific advancements and the work of scientists continue to shape human achievement. They will learn scientific enquiry skills that will enable them to predict, investigate and evaluate evidence and draw conclusions. Pupils should be encouraged to recognise the power of rational explanation that enables them to ask and answer questions.

### **Science in the Early Years**

- Communication and Language
- Personal, Social and Emotional Development
- Understanding the World

	<b>Area of Learning</b>	<b>Children will be learning to...</b>
<b>Three and Four Year Olds</b>	<i>Communication &amp; Language</i>	Understand 'why' questions, like: "Why do you think the caterpillar got so fat?"
	<i>Personal, Social &amp; Emotional Development</i>	Make healthy choices about food, drink, activity and toothbrushing.
	<i>Understanding the World</i>	<p>Use all their senses in hands-on exploration of natural materials.</p> <p>Explore collections of materials with similar and/or different properties.</p> <p>Talk about what they see, using a wide vocabulary.</p> <p>Begin to make sense of their own life-story and family's history.</p> <p>Explore how things work.</p> <p>Plant seeds and care for growing plants.</p> <p>Understand the key features of the life cycle of a plant and an animal.</p> <p>Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>Explore and talk about different forces they can feel.</p> <p>Talk about the differences between materials and changes they notice.</p>
<b>Reception</b>	<i>Communication &amp; Language</i>	<p>Learn new vocabulary.</p> <p>Ask questions to find out more and to check what has been said to them.</p> <p>Articulate their ideas and thoughts in well-formed sentences.</p> <p>Describe events in some detail.</p>

			<p>Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.</p> <p>Use new vocabulary in different contexts.</p>
	<i>Personal, Social &amp; Emotional Development</i>		<p>Know and talk about the different factors that support their overall health and wellbeing:</p> <ul style="list-style-type: none"> <li>• regular physical activity</li> <li>• healthy eating</li> <li>• toothbrushing</li> <li>• sensible amounts of 'screen time'</li> <li>• having a good sleep routine</li> <li>• being a safe pedestrian</li> </ul>
	<i>Understanding the World</i>		<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel while they are outside.</p> <p>Recognise some environments that are different to the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>
<b>ELG</b>	<i>Communication &amp; Language</i>	<i>Listening, Attention &amp; Understanding</i>	<p>Make comments about what they have heard and ask questions to clarify their understanding.</p>
	<i>Personal, Social &amp; Emotional</i>	<i>Managing Self</i>	<p>Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p>
	<i>Understanding the World</i>	<i>The Natural World</i>	<p>Explore the natural world around them, making observations and drawing pictures of animals and plants.</p> <p>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>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>

<b>Autumn Term 1</b>	<b>Autumn Term 2</b>	<b>Spring Term 1</b>	<b>Spring Term 2</b>	<b>Summer Term 1</b>	<b>Summer Term 2</b>
All about me!	Animals	Materials	Keeping Healthy	Minibeasts and Growing	Under the sea

**\*Woven throughout the year will be opportunities to experience and explore the changing seasons\***

**Start Point Class: Years 1&2**

	<b>Autumn Term 1</b>	<b>Autumn Term 2</b>	<b>Spring Term 1</b>	<b>Spring Term 2</b>	<b>Summer Term 1</b>	<b>Summer Term 2</b>
<b>Year A</b>	Animals including Humans <i>Year 1</i>	Living Things <i>Year 2</i>	Uses of Everyday Materials <i>Year 2</i>		Plants <i>Year 1</i>	
<b>Year B</b>	Animals including Humans <i>Year 2</i>		Everyday Materials <i>Year 1</i>		Plants <i>Year 2</i>	

**\*Woven throughout the year will be opportunities to experience and explore the changing seasons\***

**Croft and Goodshelter Class: Years 3, 4, 5 & 6**

	<b>Autumn Term 1</b>	<b>Autumn Term 2</b>	<b>Spring Term 1</b>	<b>Spring Term 2</b>	<b>Summer Term 1</b>	<b>Summer Term 2</b>
<b>Year A</b>	Sound <i>Year 4</i>	Electricity <i>Year 6</i>	Animals including Humans <i>Year 3</i>	Animals including Humans <i>Year 4</i>	Plants <i>Year 3</i>	
<b>Year B</b>	Living Things <i>Year 4</i>	Living Things <i>Year 5</i>	Forces <i>Year 5</i>	Light <i>Year 3</i>	Evolution <i>Year 6</i>	
<b>Year C</b>	Animals including Humans <i>Year 5</i>	Animals including Humans <i>Year 6</i>	Rocks <i>Year 3</i>	Electricity <i>Year 4</i>	Properties of Materials <i>Year 5</i>	
<b>Year D</b>	Forces and Magnets <i>Year 3</i>	States of Matter <i>Year 4</i>	Light <i>Year 6</i>	Living Things <i>Year 6</i>	Earth and Space <i>Year 5</i>	