

Curriculum intent (overview) – To deepen students’ skills and knowledge through a broad and balanced curriculum which prepares students for adulthood.

## 3Q3 - Quest Curriculum – Science 4 Lessons Weekly

To access [SoW](#) click the hyperlink for each topic

Year	2023 – 2024 Autumn 1	2023 – 2024 Autumn 2	2023 – 2024 Spring 1	2023 – 2024 Spring 2	2023 – 2024 Summer 1	2023 – 2024 Summer 2
	<p><b>Topic:</b> <a href="#">Intro to lab</a></p> <p><a href="#">B Body parts and senses (E)</a></p> <p><b>Suggested Key Questions:</b> What are the common scientific equipment? How do we work safely in the lab? How do we sense the world around us?</p> <p><b>Key Skills and Knowledge:</b> <b>Intro to Lab</b></p> <ul style="list-style-type: none"> <li>• Pupils to know the Laboratory rules and to start abiding by them.</li> <li>• Pupils to see, handle and name some of the commonly used science apparatus.</li> <li>• <i>Pupils to practise drawing science apparatus correctly.</i></li> <li>• <i>Pupils to practise turning a Bunsen burner off and on correctly, and</i></li> </ul>	<p><b>Topic:</b> <a href="#">C Exploring senses.</a> <a href="#">P Electricity (D)</a></p> <p><b>Suggested Key Questions:</b> Why do we have senses? What is electricity and why is it needed?</p> <p><b>Key Skills and Knowledge:</b> <b>C Exploring senses</b></p> <ul style="list-style-type: none"> <li>• To experience a range of properties of everyday objects using all senses.</li> <li>• To be able to identify some similarities between materials.</li> <li>• To be able to identify some differences between materials.</li> <li>• To begin to develop the skill of observing.</li> </ul>	<p><b>Topic:</b> <a href="#">B Keeping Healthy (E)</a></p> <p><b>Suggested Key Questions:</b> How can we stay healthy?</p> <p><b>Key Skills and Knowledge:</b> <b>B Keeping healthy</b></p> <ul style="list-style-type: none"> <li>• To know about the importance of food and water to humans.</li> <li>• To be able to distinguish between healthy and less healthy foods.</li> <li>• To be able to recognise the need for a variety of foods and exercises.</li> <li>• To be able to plan a healthy meal.</li> </ul>	<p><b>Topic:</b> <a href="#">C Changing,</a> <a href="#">P Light (D)</a></p> <p><b>Suggested Key Questions:</b> How do materials change? What are some sources of light?</p> <p><b>Key Skills and Knowledge:</b> <b>C Changing</b></p> <ul style="list-style-type: none"> <li>• To experience, using all the senses, a variety of materials for squishiness, bendiness, twistability and stretchiness.</li> <li>• To be able to explore a range of changes when materials are heated, cooled or made wet.</li> <li>• To begin to comment on, and</li> </ul>	<p><b>Topic:</b> <a href="#">B Life Cycle Growth,</a> <a href="#">P Forces (D)</a></p> <p><b>Suggested Key Questions:</b> What are the stages of the human life cycle? What are forces?</p> <p><b>Key Skills and Knowledge:</b> <b>B Life Cycle Growth</b></p> <ul style="list-style-type: none"> <li>• To encounter different stages in human life cycle.</li> <li>• To indicate some awareness of different stages in human life cycle e.g. simple role-play – pretend to cry when shown picture of baby.</li> <li>• To be able to name 3 different stages in human life cycle.</li> <li>• To begin to develop the skill of discussing.</li> </ul>	<p><b>Topic:</b> <a href="#">C Acids and alkalis (E)</a></p> <p><b>Suggested Key Questions:</b> What are acids and alkalis?</p> <p><b>Key Skills and Knowledge:</b> <b>C Acids and alkalis</b></p> <ul style="list-style-type: none"> <li>• To be aware that many everyday chemicals and foods contain acids</li> <li>• To understand that acids can burn you and can be dangerous</li> <li>• To know that we must wear goggles when using acids</li> <li>• To recognise common hazard symbols associated with acids</li> </ul>

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	<p><i>changing the type of flame.</i></p> <ul style="list-style-type: none"> <li>• Pupils to be able to use a microscope, thermometer and measuring equipment correctly.</li> </ul> <p><b>B Body parts and senses</b></p> <ul style="list-style-type: none"> <li>• To be able to name the external parts of the body.</li> <li>• To associate parts of the body with particular functions.</li> <li>• To be able to suggest what is inside the body.</li> <li>• To be able to explore the 5 senses practically.</li> <li>• To know which organs are associated with which sense.</li> <li>• To know the importance of senses in survival.</li> </ul> <p><b>Key Skills:</b> Begin to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers.</p>	<p><b>P Electricity</b></p> <ul style="list-style-type: none"> <li>• To know that electricity can be dangerous.</li> <li>• To know that electricity can produce light, heat, sound, movement.</li> <li>• To be able to connect given circuit components to light the bulb/make the buzzer sound.</li> </ul> <p><b>Key Skills:</b> Identify and classify with some support.</p> <p><i>To begin to use simple secondary sources to find answers.</i></p> <p>Begin to talk about what they have found out and how they found it out.</p> <p>Use some simple scientific language.</p>	<ul style="list-style-type: none"> <li>• To be able to differentiate between different kinds of exercise.</li> <li>• To know that food is needed for growth, health and activity.</li> <li>• To be able to group foods simply e.g. <i>fillers, fruit/vegetables, dairy, meat/fish, fatty etc.</i></li> <li>• To know that food is vital for energy, growth and health.</li> <li>• To be able to test for starch and fat.</li> <li>• To be able to group foods according to carbohydrate, protein, fat, vitamins and minerals.</li> <li>• To be able to describe the process of digestion</li> <li>• To be able to label the main parts of the digestive system</li> </ul> <p><b>Key Skills:</b> Begin to recognise when a simple fair test is necessary and help to decide how to set it up.</p> <p>Gather, record, and begin to classify and present data in a variety of ways to</p>	<p>record simply, their observations.</p> <p><b>P Light</b></p> <ul style="list-style-type: none"> <li>• To experience light and dark.</li> <li>• To be able to select light sources e.g. torch, candle, from tray of mixed objects.</li> <li>• To be able to describe or indicate features of night-time</li> <li>• To be able to name some sources of light.</li> <li>• To explore some aspects of shadows.</li> </ul> <p><b>Key Skills:</b> Ask simple questions about the world around us.</p> <p>Use simple observations and ideas to suggest answers to questions.</p> <p>Perform simple tests with support. To begin to discuss my ideas about how to find things out.</p> <p>Begin to record simple data.</p>	<p><b>P Forces</b></p> <ul style="list-style-type: none"> <li>• To experience a range of pushes and pulls.</li> <li>• To be able to demonstrate a range of pushes and pulls.</li> <li>• To be able to describe, using some scientific vocabulary, a range of pushes and pulls.</li> </ul> <p>To begin to develop the skill of planning.</p> <p><b>Key Skills:</b> Begin to recognise that questions can be answered in different ways.</p> <p>To observe simple changes over time and, with guidance, begin to notice patterns and relationships.</p> <p>Perform simple tests with support. To begin to discuss my ideas about how to find things out.</p> <p>Begin to record and communicate their findings in a range of ways.</p>	<ul style="list-style-type: none"> <li>• To observe the effect of acids on bicarbonate of soda</li> <li>• To use litmus paper as a more sophisticated method of detecting an acid</li> <li>• To use the term “indicator” when describing an acid</li> <li>• To recall that the opposite to an acid is an alkali</li> <li>• To understand that a substance that is neither acidic nor alkaline is called neutral</li> <li>• To know that tap water is (more or less) neutral</li> <li>• To know that we can make an acid neutral if we add an alkali</li> <li>• To understand that we can use neutralisation to treat bee stings wasp stings and indigestion.</li> </ul> <p><b>Key Skills:</b> Begin to identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Use simple secondary sources to find answers.</p>
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			help in answering questions.			
Links to Gatsby Benchmarks:	<p>Benchmark 3 – Addressing the needs of the student and * - Personal Guidance</p> <p>Students to consider what skills are needed to be a doctor/ nurse / medical professional ... lead onto looking at what skills are needed for different roles they are interested in and what qualifications.</p>	<p>Benchmark 4 – Linking Curriculum to learning</p> <p>Students to consider what skills are needed to be an electrician. Why is it important to be safe around electrical wires / equipment? To understand the importance that all live parts of electrical equipment are inaccessible during operation.</p>	<p>Benchmark 3 – Addressing the needs of the student and * - Personal Guidance</p> <p>Students to consider what skills are needed to be engineer / site engineer ... lead onto looking at what skills are needed for different roles they are interested in and what qualifications.</p>	<p>Benchmark 4 – Linking Curriculum to learning</p> <p>Students to consider what skills are needed to be a surgeon / doctor / physiotherapist. To know the names of body parts and understand the uses of them.</p>	<p>Benchmark 3 – Addressing the needs of the student and * - Personal Guidance</p> <p>Students to consider what skills are needed to be a doctor / Otorhinolaryngology / dietician / Exercise physiologist., Fitness Centre manager. Personal trainer, Sport therapist ... lead onto looking at what skills are needed for different roles they are interested in and what qualifications.</p>	<p>Benchmark 2, – Learning from the Career and Labor Market information. Benchmark 3 – Addressing the needs of the student and * - Personal Guidance Benchmark 6 – Experience of Work places</p> <p>Students to consider what skills are needed to access the opportunities they are interested in. Looking at careers in sports and researching sports.</p>