

8E - Explorer Curriculum – Science/6 Lessons weekly

Year	2024 – 2025 Autumn 1 (8 wks)	2024 – 2025 Autumn 2 (7 wks)	2024 – 2025 Spring 1 (6 wks)	2024 – 2025 Spring 2 (7 wks)	2024 – 2025 Summer 1 (4 wks)	2024 – 2025 Summer 2 (7 wks)
	<p>Topics:</p> <p>B Human skeleton B Heart & circulation</p> <p>Suggested Key Questions: Why do humans have a skeleton? What is the circulatory system?</p> <p>Key Skills and Knowledge: B human skeleton</p> <ul style="list-style-type: none"> To know that the skeleton is used for support, movement and protection. To be able to show that muscles work in pairs and can only pull. To know that 'meat' is muscle. To know that bones are joined by joints. To be able to name types of joints (<i>hinge, ball & socket</i>). <p>B Heart & circulation</p>	<p>Topic:</p> <p>P Forces & Magnets</p> <p>Suggested Key Questions: What do forces do?</p> <p>Key Skills and Knowledge: To be able to identify forces as pushes and pulls.</p> <p>To be able to compare how things move on different surfaces.</p> <p>To be able to identify magnetic materials</p> <p>To be able to describe what happens when poles of magnets are close together.</p> <p>To be able to describe the effects of friction between surfaces.</p> <p>To be able to describe the effect of air resistance on a moving object.</p>	<p>Topic:</p> <p>C States of matter</p> <p>Suggested Key Questions: What are the states of matter?</p> <p>Key Skills and Knowledge: To be able to sort materials into solids, liquids and gases.</p> <p>To be able to describe the properties of solids, liquids and gases.</p> <p>To know that heating and cooling causes materials to change state.</p> <p>To be able to measure the temperature at which a substance changes state at.</p> <p>To be able to explain that the higher the temperature, the</p>	<p>Topic:</p> <p>B Keeping Healthy</p> <p>Suggested Key Questions: How can we stay healthy?</p> <p>Key Skills and Knowledge:</p> <ul style="list-style-type: none"> To know about the importance of food and water to humans. To be able to distinguish between healthy and less healthy foods. To be able to recognise the need for a variety of foods and exercises. To be able to plan a healthy meal. To be able to differentiate between different kinds of exercise. To know that food is needed for growth, health and activity. To be able to group foods simply e.g. <i>fillers, fruit/vegetables, dairy, meat/fish, fatty etc.</i> To know that food is vital for energy, growth and health. 	<p>Topic:</p> <p>P Space</p> <p>Suggested Key Questions: Where is the Earth?</p> <p>Key Skills and Knowledge: To know that the Sun, Earth and Moon are spherical in shape.</p> <p>To know where the Sun, Earth and Moon are in relation to each other.</p> <p>To know the Earth is moving around the Sun.</p> <p>To know the Moon is moving around the Earth and Sun</p> <p>To know which other planets orbit the sun</p> <p>Key Skills Discussing & Questioning-Ask one or two questions</p>	<p>Topic:</p> <p>C Changing materials</p> <p>Suggested Key Questions: How can materials be changed?</p> <p>Key Skills and Knowledge: To describe what a mixture is</p> <p>To describe what a solution is.</p> <p>To describe what sieving is and what it is used to separate.</p> <p>To describe what filtering is and what it is used to separate.</p> <p>To describe what evaporation is and what it is used to separate.</p> <p>To explain what reversible changes are and give examples.</p>

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

	<ul style="list-style-type: none"> • To know that everybody needs a working heart to stay alive. • To be able to locate the position of the heart. • To experience own heartbeat (use touch or stethoscope) • To know that the heart can beat faster. • To know that that heart pumps blood round the body and to the lungs. • To know that everybody needs to take air in and out of own body. • To know that each person has a pair of lungs. • To be able to locate the position of the lungs. • To know that arteries carry blood away from the heart and veins to it. • To know that blood is carried round the body in veins and arteries. • To know that blood carries • food and oxygen to all parts of the body and waste away. 	<p>To be able to describe the effect of water resistance on a moving object.</p> <p>To be able to explain that objects fall towards the Earth because of the force of gravity.</p> <p>To know that simple mechanisms can turn small forces into big effects.</p> <p>Key Skills Fair Testing Begin to show an awareness of treating things in the same way</p>	<p>quicker water evaporates.</p> <p>To be able to explain what happens to water at the different stages of the water cycle</p> <p>Key Skills Observe and Measure - Say if something changed when asked about it.</p>	<ul style="list-style-type: none"> • To be able to test for starch and fat. • To be able to group foods according to carbohydrate, protein, fat, vitamins and minerals. • To be able to describe the process of digestion • To be able to label the main parts of the digestive system <p>Key Skills Interpreting - Describe or show simply what they did.</p>		<p>To explain what irreversible changes are and give some examples.</p> <p>Key Skills Planning - Makes a suggestion about what to do</p>
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	<ul style="list-style-type: none"> • To know that a pulse is caused by heart beat and measure it. • To be able to describe the effect of exercise and rest on pulse rate. • To understand, simply, why the pulse goes up with exercise <p>Key Skills Predicting Make a simple statement</p>					
<p>Links to Gatsby Benchmarks:</p>	<p>4. Linking curriculum learning to careers</p> <p>What careers need to know about the human body? Health care assistant, nurse, doctor, physiotherapist, dietician personal trainer,</p>	<p>4. Linking curriculum learning to careers</p> <p>What careers need knowledge of forces? engineer, designer, builder</p>	<p>4. Linking curriculum learning to careers</p> <p>What careers need knowledge of the changes of state? Distillers, weather forecasters, black smith.</p>	<p>4. Linking curriculum learning to careers</p> <p>What careers need knowledge of Healthy eating and digestion? Personal trainer, Health care assistant, nurse, Dietician, Doctor, chief.</p>	<p>4. Linking curriculum learning to careers</p> <p>What careers need knowledge about space? Astronomer, weather forecaster.</p>	<p>4. Linking curriculum learning to careers</p> <p>What careers need knowledge about changing materials? Industrial chemists, manufacturer,</p>