

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

8E - Venture Curriculum – Science/6 Lessons weekly

Year	2024 – 2025 Autumn 1 (8 wks)	2024 – 2025 Autumn 2 (7 wks)	2024 – 2025 Spring 1 (5 wks)	2024 – 2025 Spring 2 (5 wks)	2024 – 2025 Summer 1 (7wks)	2024 – 2025 Summer 2 (7 wks)
	<p>Topics:</p> <p>B Human skeleton B Heart & circulation</p> <p>Suggested Key Questions: Suggested Key Questions: Why do humans have a skeleton? What is the circulatory system? 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 	<p>Topic:</p> <p>D Rocks P Sound</p> <p>Suggested Key Questions: Are all rocks the same? What are the properties of sound? Key Skills and Knowledge:</p> <p>D Rocks</p> <p>To know that rocks are natural materials</p> <p>To know how rocks and minerals can be very useful to us</p> <p>To sort rocks by their appearance and texture.</p> <p>To know that water passes through some rocks and not others.</p> <p>To group rocks by their hardness.</p>	<p>Topic:</p> <p>D States of matter</p> <p>Suggested Key Questions: What are the states of matter? Key Skills and Knowledge:</p> <p>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</p>	<p>Topic:</p> <p>P Forces & Magnets</p> <p>Suggested Key Questions: What do forces do? Key Skills and Knowledge:</p> <p>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>Topic:</p> <p>B Plants</p> <p>Suggested Key Questions: What do plants need? Key Skills and Knowledge:</p> <p>To be able to identify and name a variety of common wild and garden plants, including trees.</p> <p>To be able to identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>To know what plants need to grow.</p> <p>To be able to describe how water is transported within plants</p>	<p>Topic:</p> <p>D Changing materials</p> <p>Suggested Key Questions: How can materials be changed? Key Skills and Knowledge:</p> <p>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>

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	<p>joints (<i>hinge, ball & socket</i>).</p> <p>B Heart & circulation</p> <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 	<p>To know the structure of the Earth.</p> <p>To understand how sedimentary, metamorphic and igneous rocks are formed.</p> <p>To know that if a rock is heated and cooled lots of times it eventually cracks</p> <p>To know that rain and wind can cause the weathering of rocks.</p> <p>P Sound</p> <p>To be able to explain how sound sources vibrate to make sounds.</p> <p>To be able to explain how vibrations change when the loudness of a sound changes.</p> <p>To be able to explain how the pitch of a sound can be altered.</p> <p>To be able to explain how sounds travel to reach our ears.</p> <p>To be able to explain how we hear sounds.</p> <p>Explain how sounds change over distance.</p>	<p>temperature, the quicker water evaporates.</p> <p>To be able to explain what happens to water at the different stages of the water cycle</p>	<p>To be able to describe the effect of air resistance on a moving object.</p> <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>To be able to identify the parts of a flower and describe their functions in reproduction.</p> <p>To be able to describe what happens in pollination.</p> <p>To be able to describe what happens in fertilisation.</p> <p>To be able to describe the different ways seeds may be dispersed.</p>	<p>To explain what reversible changes are and give examples.</p> <p>To explain what irreversible changes are and give some examples.</p>
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	<ul style="list-style-type: none"> • food and oxygen to all parts of the body and waste away. • 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>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 to know about rocks? Geologists, sculptor</p> <p>What careers need to know about sound? Theatre/concert technicians, sound engineer</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 forces? engineer, designer, builder</p>	<p>4. Linking curriculum learning to careers</p> <p>What careers need knowledge about plants? gardener, garden designer, florist, grounds man/person, farmer, farm labour and park warden/keeper.</p>	<p>4. Linking curriculum learning to careers</p> <p>What careers need knowledge about changing materials? Industrial chemists, manufacturer,</p>