



YEAR 8 SCIENCE 2023-2024

YEAR	TRINITY 2	MICHAELMAS 1	MICHAELMAS 2	LENT 1	LENT 2	TRINITY 1
8	<p>Big Idea: Ecosystems Interdependence In this unit pupils will learn about food chains, webs and what happens when they are disrupted, ecosystems and competition within the ecosystem. Pupils will also learn about the structure and function of the parts of a flower, pollination, plant fertilisation, germination and seed dispersal.</p> <p>Big Idea: Earth Earth Structure and Universe In this unit pupils will learn about the structure of the earth and the formation of sedimentary, igneous and metamorphic rocks leading on to the rock cycle. Pupils will also learn about the solar system and our place in the universe and the phenomena of day, night, seasons and the phases of the moon.</p>	<p>Big Idea: Genes Variation and reproduction In this unit pupils will learn about what variation is and the different causes including those that are continuous and discontinuous. Pupils will also learn about puberty, adolescence and the reproductive systems. They will then learn about fertilisation, implantation, development of a foetus, the menstrual cycle and contraception.</p> <p>Big Idea: Electromagnetism Resistance and Current In this unit pupils will learn about electrical symbols, circuit diagrams, current and potential difference in series and parallel circuits as well as resistance.</p>	<p>Big Idea: Matter Elements and the Periodic Table In this unit pupils will learn about the elements, mixtures and compounds, making and naming compounds. Pupils will also learn about the arrangement of the periodic table, its development and the properties of elements in groups 1, 7 and 0.</p> <p>Big Idea: Waves Sound and Light In this unit pupils will learn about how sound waves are produced, the properties of sound waves such as amplitude, wavelength, frequency and pitch, the structure and function of the ear and how hearing can be affected. Pupils will also learn about the properties of light, reflection and refraction, the structure and function of the eye and why we see colours.</p>	<p>Big Idea: Forces Contact Forces and Pressure In this unit pupils will learn about the forces of friction, air resistance and water resistance as well as the forces that affect squashing, stretching and turning forces. Pupils will also learn about pressure in gases, liquids and solids.</p>	<p>Big Idea: Organisms Breathing and Digestion In this unit pupils will learn about the structure and function of the breathing system, the processes of inhalation, exhalation and gas exchange, the effect of smoking drugs and alcohol. Pupils will also learn about the different nutrients needed for a balanced diet, how to test for their presence in foods, the structure and function of the digestive system, and the role of enzymes in this process.</p> <p>Big Idea: Reactions Types of Reaction In this unit pupils will learn about what happens to the particles during a chemical reaction, conservation of mass, the products of combustion and thermal decomposition. Pupils will also learn about exothermic and endothermic reactions and how to represent them in energy level diagrams.</p>	<p>Big Idea: Earth Earth's Resources and Climate In this unit pupils will learn about the impact of human activity on the atmosphere and the importance of the carbon cycle. They will also learn about the ways that we use the Earth's resources and how we can reduce this to preserve them.</p>