

KS3 Science

Our KS3 science curriculum covers the core disciplines of Biology, Chemistry and Physics. Offering science as a core subject, allows our students to explore the facts behind the things we sense and experience in the world around us. Science is a subject that can be experienced as well as learnt through practical experiments; whether it's culturing bacteria, making an electrical circuit or viewing specimens under a microscope! Learning the three core disciplines of science will evidence to students that everything on Earth is connected through science, from the chemistry of the Earth's atmosphere to how this impacts the health and longevity of the biological life and ecosystems.

Woven into the curriculum's knowledge-rich scheme, are the opportunities to develop scientific skills. Hypothesising piques interest about the causes or origins of specific phenomena's, allowing us to further our knowledge on once untold mysteries. Through experimentation and research, science has provided patterns and trends to explain findings regarding the Universe, Earth, matter and life.

	Term 1	Term 2	Term 3
Year 7-8	Organisms, Reactions and Waves Students will cover a module from each discipline. In biology, students will explore the world of micro-organisms and organ systems found in the human body. In chemistry students will establish the difference between metals and non-metals and acids and alkalis. And in physics, students will learn about sound waves and light rays.	Energy, Forces, Earth and Matter The energy module provides an overview of gravitational and elastic potential energy, as well as chemical, thermal and kinetic energies. Students will explore the structure of the Earth and particles, and the forces which act upon objects; gravity and relative motion. These models are essential to encourage an understanding of the world around us.	Ecosystems, Genes and Electromagnetics Thriving and self-sufficient ecosystems support all life on Earth. Animals and plants rely on these to ensure the continuation of their species. Variation is essential for the longevity of a species, ensuring they are best suited to their environment. In electromagnetics, students will explore voltage, resistance and current; discussing the potential difference in circuits, and what makes a good conductor of electricity.

Year 9	Term 1	Term 2	Term 3
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	Organisms and Reactions Students will cover a module from each discipline. In biology, students will explore the world of micro-organisms and organ systems found in the human body; blood vessels and components of blood will also be taught. Chemical energy will provide an understanding of exothermic and endothermic reactions whilst exploring chemical bonds and catalysts.	Earth, Forces and Energy Students will explore how extraction and use of resources creates greenhouse gases, causing global warming. Students will also explore how work is done and how energy is transferred through convection, conduction and radiation.	Genes, Ecosystems and Forces Inheritance and evolution have allowed species to adapt to their environment. Students will explore why this ensures longevity of species through offspring inheriting genes from their parents. Contact forces and pressure
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