

Science

By introducing all pupils to the vast wide-ranging subject that is Science, alongside an appreciation of its impact on society and the development of scientific ideas, we hope to inspire our students and fill them with the wonder of how Science affects their everyday lives and all that it can achieve.

Biology covers and combines the essential roles of atoms and molecules inside the darkest depths of living organisms, as well as the contributions of these same organisms in the cycling of energy and elements on our planet. We study long-established theories and facts, as well as contemporary discoveries and advancements in a wide range of applications including medicine, the environment, health, nutrition, sport, agriculture, technology and ethics. The challenges, benefits and procedures of practical investigations involving often unique, occasionally unpredictable and sometimes unusual living subjects, are fully explored too.

Chemistry is the science of atoms and their magical transformations into an infinite variety of compounds and molecules by chemical reactions. It is the study of how Chemistry impacts our world through drug manufacture, fuels for heating, climate change, plastics, and nanotechnology to name but a few. Chemistry helps us to understand how the world around us works.

Physics aims to explain the world around us, from everyday experiences such as getting to school, to minute interatomic particles and then to the far reaches of the Universe and the movement of stars and planets. We use the underlying principles of the forces required and energy exchanged, to enable every action to occur.

We seek for pupils the development of lively, enquiring minds and the ability to question and argue rationally. The department strives to present Science as an exciting worthwhile activity to all of the pupils. Aiming for balance and breadth in the methodology of its teaching, where practical work is the key vehicle for learning to enhance the understanding of concepts.

Pupils take responsibility for their own learning, are encouraged to explore beyond the curriculum and develop a wide range of Science specific and transferable skills.

Where appropriate our schemes of work incorporate cross curricula themes such as careers education and guidance, communication and enhance problem solving, numeracy and literacy.

As far as possible activities are planned in such a way as to encourage full and active participation of all pupils and will be differentiated to match their needs.

The department consists of ten members of teaching staff- 2 Physics, 3 Chemistry and 5 Biology Specialists. Every member of the department teaches across the curriculum at KS3 and several teach across Science specialisms at GCSE.

We also have 3 technicians who are highly qualified and dedicated to supporting the aims of the department.