

Head of Department: Mr. V Spencer

The study of the three core scientific disciplines – biology, chemistry, and physics - helps students to understand both the phenomena that occur within us, and the mysteries of the world in which we live, as well as enhancing our knowledge of the wider universe. The study of Science in all its forms is one of the pinnacles of human achievement, and as such we aim that all of our students will develop an appreciation of its wonders, marvels and complexities.

KS3

In Key Stage 3, we hope to build up our students' confidence in scientific knowledge and enquiry, with the aim of preparing them for their science GCSEs, and to encourage more of our young people, ultimately, to pick STEM subjects at A-Level and beyond. Students study units from each of the three traditional science options (Biology, Chemistry and Physics), and will study a plethora of exciting scientific phenomena, including life cycles, disease, cellular structure, elements, atomic structure, forces, and energy.

KS4

At Laureate Academy, students study the Double Award AQA Science GCSE, at either Higher or Foundation level. This course, worth two GCSE qualifications, introduces students to Biology, Chemistry and Physics, and both the theoretical and practical aspects of each. They learn how to test their knowledge with experiments, conducting and recording high-quality investigations on such areas as cellular structure, the human body, atomic structure, chemical equations and reactions, motion and force. Additionally, students study the development of scientific method and theory, gaining an appreciation of the ever-changing wonder of the scientific world. They also consider scientific methods, limitations, scientific accuracy and error, proper conduct for investigation, and questions of ethics. The qualification provides a solid foundation for further inquiry and study in the sciences.

Sixth Form

In the Sixth Form, we offer A-Levels in Biology and Physics.

The study of Biology encompasses the natural world, its processes, and its phenomena. We offer the AQA A-Level in Biology: this course integrates practical and theoretical knowledge, and explores themes of cellular structure, ecosystems and genetics. The A-Level Biology course builds on concepts and skills that have been developed throughout GCSE. The course is exciting, relevant and challenging, presenting the essential principles in new contexts to interest and test students. At this level, emphasis is further placed on the way in which scientists work as well as the contributions of science to modern society. Opportunities for practical work run throughout the course, utilising the school's excellent science facilities.

From the smallest sub-atomic particle to the largest star, Physics is the subject that tries to explain why the universe is the way it is. We offer the OCR A-Level course to our Sixth Form

students. During the course, students will develop an understanding of the laws of the universe, and will consider such elements as particle physics, Newton and astrophysics, energy, and forces. By studying mankind's greatest thinkers, students develop the confidence to explain a wide range of phenomena and explain the world around them.