



Medical and Engineering

This is suitable for students who wish to pursue a career in building a better world, by healing others in the medical, dental, veterinarian or healthcare sectors or in the field of engineering, be it chemical or traditional.

We offer an array of support and enrichment for this pathway including an in-house careers advisor, a dedicated Teams channel, support with UCAS applications and admission tests, Medical Mavericks and Medic Mentors virtual work experience, Biology Olympiad entry and access to the Biological Sciences Review magazine.

We recommend:

- **A Levels in Biology**
- **Chemistry**
- **Physics**
- **And/or Maths for the traditional medicine route**

For those interested in a career in the healthcare sector, we recommend taking the following as well:

- **BTECs in Health and Social Care**
- **And/or Applied Science**

BIOLOGY	<p>Biology involves the study of a wide range of exciting topics, from the molecules that make up life, to how the body works and ecosystems survive. Trips, competitions, and extra opportunities are a regular feature of the course.</p> <p>The course is designed to encourage students to develop an enthusiasm for biology, learn practical and thinking skills alongside an understanding of concepts and principles and build a solid foundation of knowledge and skills for studying medicine, pharmacy, dentistry, veterinary science, or any biology related degree or apprenticeship.</p>
CHEMISTRY	<p>A Level Chemistry is the study of Physical chemistry, Inorganic chemistry, and Organic Chemistry. All of which are split into a range of topic areas. Each topic will build on areas introduced at GCSE, as well as delivering new knowledge that will equip students for degree level chemistry, medicine, dentistry, pharmacy, engineering, and other related subjects.</p> <p>Students will enhance their investigative, analytical, problem solving, presentation, research, numeracy, literacy, and practical skills, take part in the Royal Society of Chemistry Olympiad and move towards a rewarding career.</p>
PHYSICS	<p>Physics explains the behaviour of physical systems from the smallest fundamental particle to the largest super-cluster of galaxies. Understanding of crucial ideas is deepened, giving you a wide-ranging and fundamental view of the nature of matter and the Universe. You will learn about everything from kinematics to cosmology and many recent developments in, for example, particle physics.</p> <p>Physics is highly regarded by universities and can lead to degrees and degree apprenticeships such as Engineering, Geology, Astronomy, Medicine and many more.</p>
MATHEMATICS	<p>Mathematics helps us think analytically and have better reasoning abilities. Analytical thinking refers to the ability to think critically about the world around us. Analytical and reasoning skills are important because they help us solve problems and look for solutions.</p> <p>It can lead to careers in Engineering, Finance and Banking, Insurance, Business, Medicine and Science.</p>
HEALTH & SOCIAL CARE	<p>Students study Health & Social Care when they want to work in a caring environment, such as social work, nursing, teaching, as a paramedic, in the police or social care.</p> <p>The principles of Health & Social Care include: legislation, the different agencies involved within the caring environment, how social inequality affects different vulnerable groups in society, theories and models related to the care sector and specific diseases and illnesses which affect an individual's physical, intellectual, emotional and social development.</p> <p>Health and Social care can lead to careers in Nursing (adult, child, mental health, learning disabilities), Teaching, Criminology, Social Work, Paramedic Science and Counselling.</p>

APPLIED SCIENCE

BTEC Applied Science involves the study of a wide range of exciting topics, ranging from the way the body works to the study of the atom to how mobile phones communicate. This is an applied qualification so that all content is looked at in terms of how it is used in the real world.

You will learn a variety of laboratory techniques such as titration and calorimetry and how to conduct and write up a scientific study. You get a to study all three sciences and this can lead to careers in biology, chemistry, or physics but also healthcare, teaching, forensics and many more.