Applied Science BTEC

Why Study Applied Science
If you enjoy Science and would like to continue developing your scientific practical and research skills this is the course for you. It covers a wide range of topics in all three Sciences. The skills you will develop in the course include organisation, self-assessment, problem-solving and the ability to interpret data—all of which will be needed as you continue your education after school. Students enjoy discovering the connection between the theory and practical and real world applications of what you are learning.

Course Summary
First Year
Unit 1—combines all three sciences extending your knowledge from GCSE. Topics include: animal and plant cells; tissues; atomic structure and bonding; chemical and physical properties of substances related to their uses; waves and their application in communications.
Unit 2—introduces you to standard laboratory equipment and techniques, including titration, colorimetry, calorimetry, chromatography, calibration procedures and laboratory safety. Through the practical tasks in the unit, you will develop proficiency in the quantitative analytical techniques of titration and colorimetry. You will use measurement of temperature to study cooling curves and be introduced to paper and thin-layer chromatography (TLC).

Second Year
Unit 3—you will develop the essential skills underpinning practical scientific investigations. As well as drawing on Units 1 and 2, these skills will be delivered through subject themes ranging from enzymes and diffusion to energy content of fuels and electrical circuits.
4th Unit (Unit 8)—focuses on three body systems: musculoskeletal, lymphatic and digestive. You will examine each of the systems as a functioning unit, identifying their structure and function. By exploring the anatomy of these systems, through experimentation and use of simulations, you will develop your knowledge and understanding of their role in the human body.

What happens in Lessons?
You will be taught by experienced teachers who are subject experts. We do a lot of practical work in lessons introducing you to a variety of different scientific equipment.

Course Assessment
Year 12
Unit 1: Exam - three 40 minute papers, in Biology, Chemistry & Physics worth 30 marks each. The papers include a range of question types, including multiple choice, calculations, short answer and open response.
Unit 2: Portfolio of practical investigations

Year 13
Unit 3: Assessed through an external practical exam worth 60 marks.
Unit 8: Portfolio of research assignments

What to do Afterwards
Studying Applied Science opens up several different exciting career pathways for you. The structure of the course allows you to keep adding units to build your qualification to a National Extended Diploma. The qualification is recognised and accepted to help you gain entry into university or apprenticeships.

Reading Around the Subject
You will have access to two textbooks and online digital resources. There is a wealth of current research available online.

Entry Requirements: You will need at least two grade 5s in Trilogy Science or three grade 5s for those taking Triple Science. You should be taking the Higher paper in Science.

“The course allows you to do your own research and present your work in a way that suits you: this made the course enjoyable for me and allowed me to learn about Biology, Physics and Chemistry rather than only focusing on one of the sciences.”