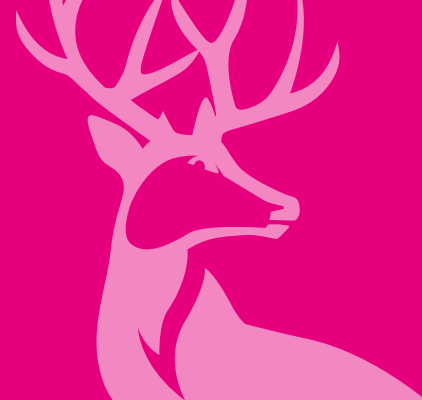




Applied Science

BTEC Level 3 Extended Certificate



Course Outline

This qualification is an Alternative Academic Qualification (AAQ) at Level 3. It is equivalent in size to one A-Level with 360 Guided Learning Hours (GLH) and a total qualification time of approximately 500 hours. It covers Biology, Chemistry, and Physics through core and optional units, combining theory and practical laboratory work. Assessment includes external exams and internally assessed coursework.

Course Content

Applied Science (Extended Certificate) enables students to study the principles and applications of sciences as well as practical scientific procedures and techniques, including;

- **Principles and Applications of Biology**
Structure and function of cells and tissues, biological molecules, enzymes and their role in organisms
- **Principles and Applications of Chemistry**
Structure of the Periodic Table and its implications on physical and chemical properties of substances, through analysis of different bonding methods
- **Principles and Applications of Physics**
Waves and their applications; force principles and their application in transportation and construction of electrical circuits
- **Practical Scientific Procedures and Techniques** Practical applications across the sciences, including chromatography, colorimetry and electrical circuits.

Students will also have the opportunity to develop their investigation skills and explore contemporary issues in science, in their independent study/ controlled assessment unit.

Mandatory units, learners complete all units

- 1 Principles and Applications of Biology – External examination 1hr
- 2 Principles and Applications of Chemistry – External examination 1hr
- 3 Principles and Applications of Physics – External examination 1hr
- 4 Practical Scientific Procedures and Techniques – controlled assessment/ portfolio
- 5 Scientific Investigation Skills – controlled assessment/portfolio
- 6 Contemporary Issues in Science – controlled assessment/portfolio

Assessment

Units 1, 2 and 3 are delivered and assessed in Year 12

Unit 4 and 5 or 6 are completed in Year 13

Exam Board

Pearson Edexcel

Entry Requirement

- Five GCSEs (Grade 4 or above)
- Grade 4 in Maths and English Language
- At least a grade 4-4 in Combined Science or Triple Science



Future opportunities

The qualification supports progression to higher education and employment in science-related fields such as:

- Biomedical Science
- Environmental Science
- Forensic Science
- Nursing and Health Sciences
- Laboratory Technician or Research Assistant roles

It also develops transferable skills in research, analysis, and teamwork valued by universities and employers.

Skills Required

- Interest in Science (Biology, Chemistry, and Physics)
- Practical laboratory and scientific investigation skills
- Analytical and problem-solving abilities
- Communication and teamwork skills
- Good literacy and numeracy for reading scientific texts and handling data
- Independent study and self-management abilities