

Level 3 AAQ –

BTEC National in Applied Science

(Extended Certificate)

(Equivalent to one A Level)

Course Description:

If you enjoy Science and would like to continue your studies without specialising in one particular area of Science then this is an ideal course for you. Being a vocational course, it also involves developing more practical employable skills such as communication, organisation, independent working and time management.

The Level 3 Alternative Academic Qualification (AAQ) - BTEC National in Applied Science is a two-year course and is equivalent to one A level. This qualification carries the same UCAS points for university as an A Level qualification.

Qualifications Required:

Minimum entry requirements apply. In addition, we also require minimum of two Grade 5s in GCSE Science or at least two Grade 5s in the separate sciences.

Aims of the Course:

- to develop a range of skills and techniques, personal skills and attributes essential for successful performance in working life
- to increase understanding of the role of the science technician or assistant practitioner, their relationship with the scientific community and their responsibilities towards the community and the environment
- to acquire technical and employability skills, knowledge and understanding which are transferable and will enable individuals to meet changing circumstances

Future Prospects:

The Level 3 AAQ BTEC National in Applied Science (Extended Certificate) is equivalent to one A Level and alongside other A Levels will enable you to progress into higher education. With the international recognition of BTEC courses such as this, you can also progress straight into employment or training. If successful there are a wide variety of science related careers that you can explore, for example: medical laboratory assistant, chemical plant process worker, chemist or laboratory technician.

Student Feedback:

‘A good combination between research work and discussion sessions.’

‘I like the mix between doing practical’s and written-based work.’

‘The trip to Colmworth Science Park was an excellent opportunity to see a working Science laboratory.’

‘The teachers are supportive and helpful.’

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Features of the Course:

- Principles and Applications of Biology (Externally assessed)
- Principles and Applications of Chemistry (Externally assessed)
- Principles and Applications of Physics (Externally assessed)
- Practical Scientific Procedures and Techniques (Internally assessed)
- Science investigation Skills (Internally assessed)

Externally Assessed Units

Unit 1: Principles and Applications of Biology

Cells and tissues
Biological Tissues
Function of water, carbohydrates, proteins, nucleic acids and lipids
Cells, enzymes and homeostasis

Unit 2: Principles and Applications of Chemistry

Atomic and electronic structure
Bonding
Periodicity
Physical chemistry
Organic chemistry

Unit 3: Principles and Applications of Physics

Working with waves
Principles of optical fibres
Uses of electromagnetic waves in communication
Laws of motion
Electrical circuits

Assessed through three 50-mark, 1-hour exams and make up 50% of the grade

Internally Assessed Units

Unit 4: Practical Scientific Procedures and Techniques

Laboratory equipment and calibration
Preparation and standardisation of solutions
Purity of organic compounds
Colorimetry
Plant growth
Thermal energy
Electrical circuits

Unit 5: Science investigation Skills

Literature review
Investigative project proposal
Project planning
Health, safety and ethics
Experimental procedures
Scientific evaluation

Assessed through an internally assessed assignment and make up 50% of the grade

Methods of Assessment:

- 50% of the whole course is externally assessed by exams (Principles and Applications)
- 50% of the whole course assessed internally by your teachers through completion of assignments (Practical Scientific procedures and Science Investigation skills)