



BTEC Level 3 National Extended Certificate Applied Science

Why study Applied Science?

It is designed for those pupils who have a passion for all aspects of Science and wish to continue studying Science post 16 but who do not wish to complete A-levels in Biology, Chemistry and Physics. The course covers the key fundamental ideas from Biology, Chemistry and Physics and will give pupils an excellent grounding in all three Science disciplines. The course has a mix of external exams and internally assessed reports.

The Pearson BTEC Level 3 National Extended Certificate in Applied Science is intended as an Applied General qualification for post-16 learners who want to continue their education through applied learning and who aim to progress to higher education and ultimately to employment, possibly in the applied science sector. The qualification is equivalent in size to one A Level and aims to give a coherent introduction to study of the applied science sector.

What is the course structure?

Applied Science- BTEC- Pearsons

Topics

Learners will study three mandatory units:

- Unit 1: Principles and Applications of Science
- Unit 2: Practical Scientific Procedures and Techniques
- Unit 3: Science Investigation Skills.

Learners choose one optional unit which has been designed to support choices in progression to applied science courses in higher education.

Optional units include:

- Unit 8: Physiology of Human Body Systems
- Unit 10: Biological Molecules and Metabolic Pathways
- Unit 13: Applications of Inorganic Chemistry
- Unit 15: Electrical Circuits and their Application.

The model for assessment in A-level is as follows;

Assessment

Unit 1 consists of a 2 hour externally assessed written exam

Unit 2 consists of 4 internally assessed written reports

Unit 3 is an externally assessed practical assessment including a written paper

The optional units is internally assessed via written coursework reports.

What activities will I be engaged in during the course?

Pupils will be introduced to a wide variety of practical elements, in Unit 1 this will include using a range of standard laboratory equipment and techniques, specifically including titration, colorimetry, calorimetry, thin layer chromatography, calibration procedures and laboratory safety.

Throughout the course pupils will demonstrate a secure level of knowledge and understanding of scientific concepts, procedures and techniques. Pupils will be able to interpret and analyse their own qualitative and quantitative data collected during investigations. They will be able to draw links between key scientific concepts and create hypothesis based on their ideas.

To achieve higher grades in this subject you must be prepared to commit to completing the many necessary hours of independent study the course demands.

The learning habits you will be asked to draw upon include:

- Reading up on prior accepted knowledge and new developments in this area.
- Evaluating your understanding and identifying misconceptions within a topic.
- Thinking and communicating with clarity, using subject specific vocabulary and numerical methods.
- Questioning, posing problems and investigating new ideas
- Developing creative ways to solve problems by being thoughtful, calm and strategic whilst respecting the environment and the organisms within it.

How can I prepare for the course?

Gain a taste of learning in BTEC Applied Science by taking a full and active part in the induction lessons on offer during our sixth form induction week. Completing the tasks set over the summer that you are given so that you are competent and confident in the variety of skills required of you. This will put you in a very favourable position for maximising your progress