

Applied Science

Pearson Level 3 AAQ BTEC National Extended Certificate

THE Pearson Level 3 Alternative Academic Qualification (AAQ) BTEC National in Applied Science is a qualification equivalent in size to one A Level. It is designed for students with an interest in science who wish to develop their scientific knowledge, practical skills and understanding alongside other Level 3 qualifications, with progression to higher education and future careers in science-related fields.

Why choose Applied Science?

- Develop practical laboratory skills used in industry and higher education.
- Build transferable skills including critical thinking, problem solving, independent learning, research and communication.
- Study real-world scientific issues and applications.



Unit 3: Principles and Applications of Physics (External exam)

- Waves and optical fibres
- Forces and motion
- Electrical circuits and energy transfer

Unit 4: Practical Scientific Procedures and Techniques (Coursework)

- Chemistry: Solution preparation, titration, and purity testing
- Biology: Field work, Colorimetry and microscopy
- Physics: Cooling curves and energy transfer, Electrical circuits and renewable energy investigations

Students also complete one optional unit:

- Unit 5:** Science Investigation Skills – practical based, student choose one investigation to research
- Unit 6:** Contemporary

What will I study?

- You will develop knowledge and understanding across Biology, Chemistry and Physics, alongside practical laboratory skills and scientific investigation techniques.

Mandatory Units

Unit 1: Principles and Applications of Biology (External exam)

- Cell structure and function
- Biological molecules and Cellular transport
- Enzyme activity homeostasis

Unit 2: Principles and Applications of Chemistry (External exam)

- Atomic structure and bonding
- Periodicity
- Physical and organic chemistry

Skills needed for success

- Independence
- Organisation
- Resilience
- Scientific curiosity
- Analytical thinking
- Problem-solving skills
- Effective communication
- Good time management
- Commitment to meeting deadlines

Support and guidance

Students receive:

- Regular progress reviews
- Assessment feedback
- Exam preparation support
- Coursework guidance
- Intervention and catch-up sessions where required
- Opportunities to develop practical and study skills throughout the course.

Entry requirements

- Grade 5 in English, Maths and Science

This qualification supports progression to a wide range of higher education courses and careers, including:

- Nursing
- Biomedical Science
- Forensic Science
- Applied Sport and Exercise Science
- Secondary Science Education
- Laboratory Science
- Health-related professions
- Scientific and technical careers

It also complements subjects such as Psychology, Sociology and Geography.