

Pearson BTEC Level 3 National Diploma in Applied Science

In this section you will find information on the purpose of this qualification and how its design meets that purpose through the qualification objective and structure.

Who is this qualification for?

The Pearson BTEC Level 3 National Diploma 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 in the applied science sector. The qualification is equivalent in size to two A Levels, and it has been designed as part of a two-year programme, normally alongside a further Level 3 qualification.

Learners who wish to take this qualification will have successfully completed a Level 2 programme of learning with GCSEs or vocational qualifications.

What does this qualification cover?

The content of this qualification has been developed in consultation with academics to ensure that it supports progression to higher education. Employers and professional bodies have also been involved and consulted to confirm that the content is appropriate and consistent with current practice.

Learners will study six mandatory units:

- Unit 1: Principles and Application of Science I
- Unit 2: Practical Scientific Procedures and Techniques
- Unit 3: Science Investigation Skills
- Unit 4: Laboratory Techniques and their application
- Unit 5: Principles and Applications of Science II
- Unit 6: Investigative Project.

Learners choose two optional units, which have been designed to support progression to the range of sector-related courses in higher education and to link with relevant occupational areas.

This qualification enables learners to acquire substantial cross-sector scientific knowledge and practical scientific skills, including carrying out practical laboratory tasks, planning investigations, collecting, analysing and presenting data, and reviewing and refining the methodology of practical and laboratory-based work.

What could this qualification lead to?

The requirements of the qualification will mean that learners develop the transferable and higher order skills which are valued by higher education providers and employers.

The qualification carries UCAS points and is recognised by higher education providers as contributing to admission requirements for many relevant courses. Taken on its own, the National Diploma in Applied Science will offer the opportunity to progress to some science-related degree courses. Taken alongside other qualifications, it will prepare learners to progress to a wider range of degree programmes. For example, taken alongside:

- a BTEC Level 3 National Extended Certificate in Health and Social Care to progress to nursing courses
- an A Level in Psychology to progress to psychology courses
- an A Level in Geography to progress to environmental science courses.

Learners should always check the entry requirements for degree programmes with specific higher education providers. This qualification is primarily designed to support progression to applied science and related employment after further study at university. However, it also supports learners progressing directly to employment, as the transferable knowledge, understanding and skills will give learners an advantage when applying for a range of entry-level industry training programmes and/or Higher Apprenticeships in areas such as laboratory technician, industrial technician, medical technician.

How does the qualification provide employability skills?

In the BTEC National units there are opportunities during the teaching and learning phase to give learners practice in developing employability skills. Where employability skills are

referred to in this specification, we are generally referring to skills in the following three main categories:

- **cognitive and problem-solving skills:** use critical thinking, approach non-routine problems applying expert and creative solutions, use systems and technology
- **intrapersonal skills:** communicating, working collaboratively, negotiating and influencing, self-presentation
- **interpersonal skills:** self-management, adaptability and resilience, self-monitoring and development.

There are also specific requirements in some units for assessment of these skills where relevant. For example, where learners are required to undertake real or simulated activities.

How does the qualification provide transferable knowledge and skills for higher education?

All BTEC Nationals provide transferable knowledge and skills that prepare learners for progression

to university. The transferable skills that universities value include:

- the ability to learn independently
- the ability to research actively and methodically
- being able to give presentations and being active group members.

BTEC learners can also benefit from opportunities for deep learning where they are able to make connections among units and select areas of interest for detailed study. BTEC Nationals provide a vocational context in which learners can develop the knowledge and skills required for particular degree courses, including:

- reading scientific and technical texts
- effective writing
- analytical skills
- practical skills
- preparation for assessment methods used in degrees.