Purpose Statement

Name of regulated qualification	
QAN: 601/7437/7	**Title: Pearson BTEC Level 3 National Extended Diploma in Applied Science (1080 GLH)**

Overview

The applied science sector

The applied science sector is diverse and wide-ranging, including, for example, biomedical, forensic, physical and chemical sciences. There are approximately 5.8 million people employed in applied science occupations in the UK. This equates to approximately 20% of the workforce. The applied science sector has a crucial role to play in delivering economic growth in the UK and allowing companies to compete in a rapidly enlarging global market.

Who is this qualification for?

The Pearson BTEC Level 3 National Extended Diploma in Applied Science is intended to be an Applied General qualification for post-16 students wanting to continue their education through applied learning and who aim to progress to higher education courses. The qualification is wide-ranging and equivalent in size to 3 A levels, and it has been designed as a full two-year programme. Students wishing to take this BTEC will have successfully completed a level 2 programme of learning with GCSEs and potentially some vocational qualifications.

What does the qualification cover?

The content of this qualification has been developed in consultation with academics to ensure that it supports progression to higher education. In addition, employers and professional bodies have been involved, in order to confirm that the content is also appropriate and consistent with current practice for students choosing to enter employment directly in the applied science sector.

As well as the knowledge, understanding and skills that underpin study of the applied science sector, this BTEC gives students the opportunity to focus further on different aspects of applied science.

Everyone taking this qualification will study seven mandatory units:

- Principles and Application of Science I
- Practical Scientific Procedures and Techniques
- Science Investigation Skills
- Laboratory Techniques and their Application
- Principles and Application of Science II
- Investigative Project
- Contemporary Issues in Science.

As the mandatory content is equivalent in size to 2 A levels, HE representatives have confirmed that it is appropriate to allow students to choose their six option units from a wide range so that they can explore their own choice of area for further study.

The particular pathways covered are:

- Pearson BTEC Level 3 National Extended Diploma in Applied Science (Biomedical Science) – option units cover topics such as physiology, microbiology, diseases and infections
- Pearson BTEC Level 3 National Extended Diploma in Applied Science (Analytical and Forensic Science) – option units cover topics such as chemical analysis, chemical periodicity and forensic evidence collection and analysis
- Pearson BTEC Level 3 National Extended Diploma in Applied Science (Physical Science) – option units cover topics such as materials science, astronomy and electrical circuits.

Students can also choose options across the disciplines, rather than focus on a particular one, and achieve the Pearson BTEC Level 3 National Extended Diploma in Applied Science.

Whichever route is chosen, the same range of progression routes remains open to students; the title gives an indication of the nature of the option units studied.

What could this qualification lead to?

Will the qualification support progression to further learning, if so, what to?

In addition to the applied science sector-specific content outlined above, the requirements of the qualification will mean students develop the transferable and higher-order skills that are highly regarded by both HE and employers.

For example, the study of applied science particularly encourages development of skills such as evaluation, analysis and synthesis. These skills are developed through the variety of approaches to teaching and learning enabled by the specification. In particular, the investigative project and contemporary science issues allow students to demonstrate their ability to plan, research, address problems, assimilate data, and draw together and communicate their findings.

The qualification is intended to carry UCAS points and is recognised by HE providers as meeting admission requirements to many relevant courses.

The pathways allow students to focus on particular areas in applied science, and aim to indicate to end users what that focus has been – but are not intended to restrict future progression. This Pearson BTEC Level 3 National Extended Diploma in Applied Science meets entry requirements for higher courses in the sector, for example:

- BSc (Hons) in Chemistry with Analytical Science
- BSc (Hons) in Forensic Science
- Higher National Diploma (HND) in Applied Science.

Some university courses may require achievement of specific units, for example a BSc (Hons) in Biomedical Sciences and a BSc (Hons) in Pharmacy at certain universities will require options to be taken from the Biomedical Science group.

Students should always check the entry requirements for degree programmes at specific HE providers.

Will the qualification lead to employment, if so, in which job role and at which level?

This qualification is primarily designed to support progression to employment after further study at university. However, it also supports students choosing to progress directly to employment, as the transferable knowledge, understanding and skills will give successful students 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 and medical technician.

If there are larger and/or smaller versions of this qualification, or it is available at different skills levels, why should the student choose this one?

The **Pearson BTEC Level 3 National Extended Diploma in Applied Science** is the largest qualification in the suite of BTEC Nationals in Applied Science and is equivalent in size to 3 A levels. It is best suited to students wanting to progress to HE in the applied science sector.

The suite also includes the following qualifications.

The **Pearson BTEC Level 3 National Certificate in Applied Science** is equivalent in size to 0.5 of an A level. It is intended to be studied by students who have chosen a study programme that may not be focused on science, but for whom an element of science would be complementary. It may act as a stepping stone to further applied science qualifications, if desired.

The **Pearson BTEC Level 3 National Extended Certificate in Applied Science** is equivalent in size to 1 A level. It is for students interested in learning about the sector alongside other fields of study, with a view to progressing to a wide range of HE courses, but not necessarily in applied science.

The **Pearson BTEC Level 3 National Foundation Diploma in Applied Science** is equivalent in size to 1.5 A levels and is for students looking for a one-year course of full-time study, or for those wishing to study it alongside another area of study, which contrasts or complements the Foundation Diploma in Applied Science, as part of a two-year full-time study programme.

The **Pearson BTEC Level 3 National Diploma in Applied Science** is equivalent in size to 2 A levels. It typically makes up two-thirds of a 16–19 study programme, and is taken alongside other qualifications. The additional qualification(s) studied allow students either to give breadth to their study by choosing a contrasting subject, or to give their studies more focus by choosing a complementary subject.

For more detail of the other qualifications listed here, and the different progression opportunities they particularly support, please refer to their statements of purpose.

This qualification is supported by the following organisations
Higher education
The University of Manchester
University of East Anglia
University of Huddersfield
Kingston University
University College Birmingham
Harper Adams University

University of the West of England

Professional and trade bodies

Royal Society of Chemistry

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