

BTEC Level 3

(NQF) National Foundation/Extended Diploma Applied Science

Course Overview

Over two years, you will study a range of units (see below) to enable entry into a wide range of degree courses. We choose particular optional units to suit the interests and career intentions of our students. The course is assessed through assignments based on personal research and the results of practical investigations.

This is a well-respected science qualification, seen as a more practical and work-related route than A Level sciences. Students on this course will develop self-reliance and effectiveness in researching a wide range of sources.

Entry requirements : 4 GCSE's at grade 4 and above – including Maths, English and Science Double award.

There are 4 mandatory units in year 1 and 2 - which are internally and externally assessed by the examination board. Learners must complete and achieve at pass grade or above for all these units.

Unit Number	First Year Modules	Assessment type
1	Principles and Applications of Science I	External Exam
2	Practical Scientific Procedures and Techniques	Internal
3	Science Investigation Skills	External Exam
4	Laboratory Techniques and their Application	Internal
7	Health Applications of Life Science	Internal
8	Scientific Skills	Internal
8	Physiology of Human Body Systems	Internal
15	Electrical Circuits and their Applications	Internal

Unit Number	Second Year Modules	Assessment type
5	Principles and Applications of Science II	External exam
6	Investigative Project	External exam
7	Contemporary Issues in Science	External exam
9	Human Regulations and Reproduction	Internal
13	Applications of Inorganic Chemistry	Internal
17	Microbiology and Microbiological Techniques	Internal
21	Medical Physics Applications	Internal

For more information on course content go to:
<https://qualifications.pearson.com/en/qualifications/btec-nationals/applied-science-2016.html>



Career opportunities in Science

PHARMACIST	NURSING	MIDWIFERY	BIOMEDICAL SCIENTIST
TEACHING	PARAMEDIC	PSYCHOLOGIST	HEALTH VISITOR
RADIOGRAPHER	OPTOMETRIST	DIETITIAN	MICROBIOLOGIST
MEDICINE	RADIOTHERAPIST	APPRENTICESHIP	ENGINEER
LABORATORY TECHNICIANS	AUDIOLOGIST	AGRICULTURE	
RESEARCHER	FORENSIC SCIENCE	PODIATRY	CONVERSATIONIST



Find out more
More you tube videos to watch

<https://www.youtube.com/watch?v=hyb4aQ0GCFw>

https://www.youtube.com/watch?v=FaH6hL_GxwI

<https://www.youtube.com/watch?v=QzyTOYxRo7s>

<https://www.youtube.com/watch?v=OX8zpT20TNk>

Unit 1 – Principles of Science

The topic areas covered in this unit include animal and plant cells, tissues, atomic structure and bonding, chemical and physical properties of substances related to their uses, waves and their application in communications.

This unit is assessed through an examination worth 90 marks with a total time of 2 hours, undertaken in three timed sessions of 40 minutes for each of Biology, Chemistry and Physics. The paper will include a range of question types - including multiple choice, calculations, short answer and open response. These question types will assess discrete knowledge and understanding of the content in this unit.



Unit 3 –Scientific Investigation

They use investigative skills including planning, recording and interpreting data, analysing and evaluating findings - in order to test a hypothesis to inform further research and development.

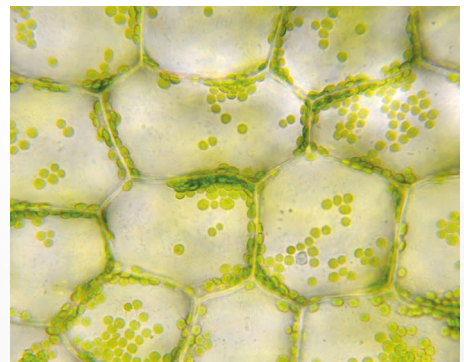
The subject themes provide different contexts for the development of the investigative skills. To complete the assessment task within this unit, you will need to draw on your learning from across your programme. Science investigative skills will help you in many scientific or enquiry-based learning courses.

This unit will be assessed through a written task (Part B) worth 60 marks. The task is set and marked by Pearson and will be completed in one sitting, within a supervised assessment session timetabled by Pearson. The assessment task will assess learners' ability to plan, record, process, analyse and evaluate scientific findings - using primary and secondary information/data. In order to complete the written task in Part B, learners will need to obtain results/observations from the practical investigation in Part A. Pearson will release teacher/technician notes and guidance to centres, to enable sufficient time for resources and trialling of the practical investigation.

Biology

Topics covered:

- Cell structures & function
- Cell specialisation
- Tissue structure & function
- Enzymes in action
- Diffusion of molecules
- Plants and their environment



Biology

Recap your knowledge of cells - so you are ready for the course in September.

<https://www.youtube.com/watch?v=cj8dDTHGJBY>

Test your knowledge through the link below

<https://askabiologist.asu.edu/cell-viewer-game/play.html>



Chemistry

**Solve the following anagrams and choose me to answer the following;
NISANCAB, SCEYAST, ONEHIR, COENITNI, OOSSERAL, EGUL, LOHOCLA, NIEFEFAC,
INCCOEA**

- Many people use me lots of times each day. Many young people will try me. Once you get hooked on me, it's hard to get rid of me.
- A lot of people can't wake up without me.
- You find me in most houses. Some children have died by sniffing me in a plastic bag.
- Many people inject me, but I can be smoked.
- I am often used in clubs and raves. People don't like the stuff I am usually mixed with.
- Children have died from squirting me down their throats. I am usually found in most houses.
- I am one of the most popular illegal drugs on the market.
- It is illegal to sell to me to anyone under the age of 18.
- I am usually expensive and a rich person's drug.

Topics covered:

- Periodicity and properties of elements
- Production and uses of substances
- Energy content of fuels



Physics

Watch the video link below to prepare for the test questions.:

https://www.youtube.com/watch?v=VE520z_ugcU

Test your knowledge through the link below :

<https://www.bbc.co.uk/bitesize/guides/z9bw6yc/test>

Topics covered:

- Waves in communication
- Working with waves
- Electromagnetic waves in communication
- Electrical circuits

