



**CANNOCK CHASE HIGH SCHOOL**

A C H I E V E M E N T F O R A L L



# Introduction



- This vocational qualifications: **practical introduction** to science. Suitable for studying alongside academic science qualifications, such as A-levels or other Level 3 vocational qualifications.
- Designed to cover engaging areas of study including **Applied experimental techniques** and Science in the **modern world**.
- There's an opportunity to undertake a **scientific investigation**, and optional units in Biology, Chemistry and Physics. Through a combination of **internally marked and externally assessed units**, these qualifications will provide learners with the opportunity to apply their knowledge in a practical and relevant way.



# Aims of the Course:



- The Edexcel BTEC qualifications in this specification are a suite of qualifications that reflect aspects of employment within science organisations or organisations that **use science and enable learners to develop practical scientific skills**.
- These qualifications will appeal to learners who prefer **portfolio-based assessment** covering a variety of scientific investigations.
- Units within the qualification cover areas of **laboratory science, forensic science, medical science, environmental science and biological, chemical and physical science** to provide a route to employment in the science industry or within organisations that use science.



# Course Requirements



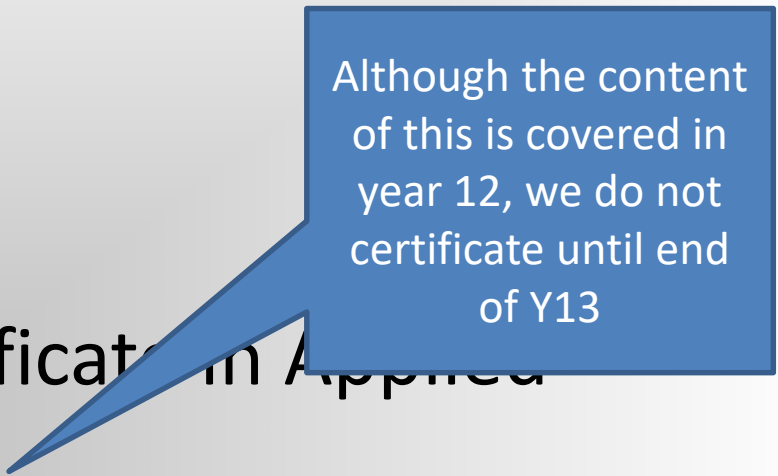
- To be considered for the course pupils are required to obtain a minimum:
- A minimum of **grade 5 in GCSE Combined science**
- Also a minimum of grade 4 in GCSE English and Grade 5 in Maths is required



# Applied Science

## Level 3 BTEC

- Courses Available:
- Edexcel BTEC Level 3 Certificate in Applied Science
- Edexcel BTEC Level 3 Extended Certificate in Applied Science



Although the content of this is covered in year 12, we do not certificate until end of Y13

# Course Content:

## 2 units

- **Three mandatory units** (two of which, Units 1 and 2, are covered in the Certificate course) plus an optional unit (varies from year to year.)
- Equivalent to **1 A-Level**.
- **Unit 1 Principles and Applications of Science**
- **Unit 2 Practical Scientific Procedures and Techniques**
- 360 guided learning hour (GLH) qualification



# Extended Certificate 360 GLH

- 4 units
- 3 mandatory
- 1. Principles and Applications of Science I (90 GLH)
- 2. Practical Scientific Procedures and Techniques (90 GLH)
- 3. Science Investigation Skills (120 GLH)
- 1 optional unit– Unit 8 Physiology of Human Body Systems



# Course Content Unit 1

## **Unit 1: Principles and Applications of Science I:**

- A **theory based** unit covering key concepts in Biology, Chemistry and Physics.
- **90 hours** of study. (Biology = 30 marks; Chemistry = 30 marks; Physics = 30 marks).
- **Externally assessed:** 3 x 40 minute exams sat in January of the first year.



# Course Content Unit 2

## Unit 2: Practical Scientific Procedures and Techniques:

- A **practical** based unit introducing students to quantitative **laboratory techniques** (in titration and colorimetry), calibration, chromatography, calorimetry and laboratory safety.
- **90 hours** of study.
- **Internally assessed** via laboratory work and practical reports assessed throughout the first year.

# Course Content Unit 3

## Unit 3: Science Investigation Skills

- A **practical** based unit covering the stages involved and skills needed in planning a **scientific investigation**. Topics covered include enzymes, diffusion, plant growth, fuels & circuits.
- **120 hours** of study
- **Externally assessed:** supervised assessment and set practical task completed within a nine-day period, over two sessions: 1 x 3 hours + 1 x 1.5 hours sat in Jan of the second year

# Course Content Unit 3

## **Unit 8: Physiology of Human Body Systems**

- **A theory and practical based unit covering 3 human body systems** (musculoskeletal, lymphatic and digestive).
- **60 hours** of study
- **Internally assessed** via a series of written case study research reports.

# What is it worth? Is it a 'proper' A-level?

- You get graded as **Pass, Merit or Distinction**
- **ALL** universities and employers recognise this qualification
- But, can be easier to achieve higher marks on this as **YOU are in control** and can improve your grade throughout
- 80% of students nationally achieve Merit and above

Level	UCAS POINTS	AS/A2 EQUIVALENT
Pass	40	E
Merit	80	C
Distinction	120	A

# Places that good qualifications in Btec could take you



## Courses our students have studied

- Nursing
- Pharmacology
- Environmental Science
- Dentistry
- Chemical engineering
- Biomedical Science
- Forensic Science
- Sports Science



# The BTEC course prepares for real jobs in the Science industry.

- Quality control technician/analyst
- ICT and data interpretation
- working in a hospital as a medical physics technician supporting the use of X-ray and other imaging/ scanning equipment
- Research laboratory in the development of new drugs.
- Managing projects that include setting up apparatus, measuring and handling chemical substances
- Chemical industry, involved with testing materials
- Forensic science service or using their analytical skills in the chemistry industry.



# Where does it lead??



Forensic Scientist



Pharmacist



Nurse



Research Scientist



Environmental Scientist



Engineer



Physiotherapist

# Where are they now?

2017 Chloe Smith  
Paramedic Science  
,Staffs Uni

2017 Alex Townshend  
History, Birmingham Uni

2017 Niamh Degg  
Veterinary Nursing  
Rease Heath College

2018 Beth Turnbull  
Physical Education,  
Liverpool Uni

2019 Imogen Clark,  
Sociology , Liverpool  
Uni

2019 Alex Rushton,  
History and Politics,  
Birmingham Uni

2019 Jamie Tunnicliffe,  
Sound Engineering,  
Wolverhampton Uni

2020 Chloe  
Hollingshead ,  
Primary Education

2020 Niamh Allen,  
Paramedic Science ,  
BCU

2020 Mollie Broadbent ,  
Forensic Psychology,  
Liverpool Uni

2020 Eve Adshead,  
Primary Teaching



# Where can you get more information?

Contact details etc.

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