

# Workington Academy - Sixth Form

## Why you should study Applied Science

The BTEC Level 3 National qualification is a rigorous course that not only teaches how Science is used in industry, but allows students to learn the fundamental skills employers are looking for. It is an alternative form of study comprising of purely portfolio work, meaning there are no exams to study for! A subsidiary diploma is equivalent to a full A2 level.

**Examination Board: Edexcel BTEC Level 3**

### Course Content (Year12)

#### Unit 1 Fundamentals of Science

Students will study:

- Scientific techniques used in industry
- Quantities necessary in chemical reactions
- The structure and functions of cells
- Calorific values of different fuels
- How to communicate effectively in Science

#### Unit 2 Working in the Science Industry

Students will study:

- Communication practices used in industry
- Science laboratory design
- Storing scientific information
- Safe working practices

#### Unit 3: Scientific Practical Techniques

Students will study:

- A range of practical techniques used in the Science industry including:
  - Analysis of inorganic and organic substances
  - Separation of substances
  - Use of scientific instrumentation and sensors

### Course Content (Year 13)

For A2, students will study three more optional units, each one helping them to develop their scientific skills in different disciplines of Science totalling 30 credits. Each unit is assessed by portfolio work.

Possible units **could** include:

- Physiology of Human Body Systems
- Biochemistry and Biochemical Techniques
- Microbiological Techniques
- Genetics and Genetic Engineering
- Chemical Laboratory Techniques
- Astronomy

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## Teaching and Learning

This A Level is taught over 3 double periods and includes the following activities:

- Industrial visits
- Independent Research
- Class discussion
- Presentations
- Practical work
- Class teaching/Tutorials
- Independent/group work

You will be required to do regular homeworks and to organise your time and work to meet internal portfolio deadlines (to minimise that last minute panic!).

## Assessment:

All units are assessed internally via the submission of a portfolio. Selected pieces of work are externally moderated by the awarding body (Edexcel).

## Skills Developed, Progression and Possible Future Careers

This course is ideal for any student who may wish to continue their science studies but may not want to follow the traditional route of advanced level. A broad range of skills such as problem solving, team working and working to tight deadlines make this course very attractive to potential employers. Students that have completed the course have moved onto higher education or work based learning such as a modern day apprenticeship.