

# CHEMISTRY

## WJEC A LEVEL

Chemistry is a vibrant and exciting subject that is often referred to as the “central science” as it connects all the other sciences. Chemistry is involved in everything around us from the food we eat to the medicines that keep us healthy. The skills involved in studying Chemistry A Level are ideal for future university degrees and employment.

## The Course Involves:

### Year One:

- **Unit 1** - Basic ideas about atoms, chemical calculations, bonding and solid structures, the periodic table, simple equilibria and acid base reactions
- **Unit 2** - Thermochemistry, rates of reaction, organic compounds, hydrocarbons, halogenoalkanes, alcohols and carboxylic acids and instrumental analysis

### Year Two:

- **Unit 3** - electrochemistry, redox reactions, chemistry of the p and d block, kinetics, enthalpy changes, entropy, equilibrium and acid-base equilibria
- **Unit 4** - Isomerism, aromaticity, alcohols and phenols, aldehydes, ketones and carboxylic acids, nitrogen containing compounds and organic synthesis and analysis

## Assessment

- 2 written examinations in the summer term of year 12 for the AS qualification - 40%
- 2 written examinations in the summer term of year 13 - 50%
- A practical exam in the summer term of year 13 - 10 %

## Particular Subjects, Skills or Interests

As a minimum, students will require:

- a) A GCSE grade B/6 in Chemistry & one other Science subject grade B/6 or
- b) A GCSE B/6 grade in the Higher Double Award Science or
- c) A GCSE B/6 grade in Core & Additional Science, Higher Tier

Students are also required to have a grade B/6 in Mathematics as this course has a mathematics module worth 10%.

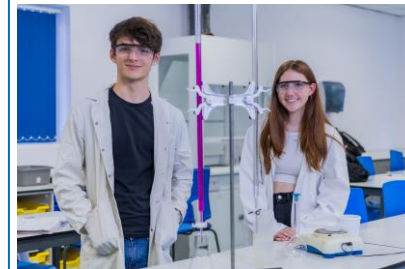
## Post-18 Opportunities

Chemistry uses and develops skills which are very desirable for future employment, including problem solving, research, analytical, numeracy, practical skills, team work and communication. It is a subject which is essential for careers such as medicine, veterinary sciences, dentistry and pharmacy. Alternatively, an A Level in Chemistry can also be used as a stepping stone to a non-scientific career in fields as diverse as business, law, accounting and management.

**Subject Leader:** Mrs E MacLeod

## Subject Champions

2021/22



### Jude Arrowsmith

**Studying:** Welsh Baccalaureate, Chemistry, Maths and Physics.

**Future aspirations:** to study Chemistry at university and specialise in pharmaceutical research.

### Ella Roberts

**Studying:** Welsh Baccalaureate, Biology, Chemistry and ICT.

**Future aspirations:** to study Biology or Bio-Chemistry at university.

*“Studying A Level Chemistry gives insight into the physical universe. It combines Physics, Biology, Maths and Medicine to explain scientific phenomena and to make advancements in many respects of life. Chemistry gives you the opportunity to study a wide variety of degrees at university and to solve complex problems from climate change and pollution to the need for new medicines.”*