

## Chemistry AS/A level



The WJEC A level in Chemistry provides a broad, coherent, satisfying and worthwhile course of study. It encourages learners to develop confidence in, and a positive attitude towards, chemistry and to recognise its importance in their own lives and to society.

Studying this A level in Chemistry encourages learners to:

- develop essential knowledge and understanding of different areas of the subject and how they relate to each other
- develop and demonstrate a deep appreciation of the skills, knowledge and understanding of scientific methods
- develop competence and confidence in a variety of practical, mathematical and problem solving skills
- develop their interest in and enthusiasm for the subject, including developing an interest in further study and careers associated with the subject
- understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society.

The specification lends itself to a variety of teaching and learning styles and offers learners of all abilities an enjoyable and positive learning experience.

Practical work is an intrinsic part of chemistry, and is greatly valued by higher education. Practical skills are developed throughout the course and an investigative approach is promoted wherever possible.

### **AS Chemistry**

There are 2 units covered in year 12:

**AS UNIT 1: THE LANGUAGE OF CHEMISTRY, STRUCTURE OF MATTER AND SIMPLE REACTIONS**

**AS UNIT 2: ENERGY, RATE AND CHEMISTRY OF CARBON COMPOUNDS**

Each unit has a written examination: 1 hour 30 minutes and is 20% of the A level qualification.

### **A level Chemistry**

There are 3 units covered in year 13:

**A2 UNIT 3: PHYSICAL AND INORGANIC CHEMISTRY**

**A2 UNIT 4: ORGANIC CHEMISTRY AND ANALYSIS**

Each unit has a written examination: 1 hour 45 minutes 25% of qualification

## A2 UNIT 5: PRACTICAL

10% of qualification

This unit gives learners the opportunity to demonstrate their skills, knowledge and understanding in relation to practical techniques and their ability to analyse and evaluate experimental data. The practical examination comprises two tasks to be carried out individually under controlled conditions:

- Experimental Task (30 marks)
- Practical Methods and Analysis Task (30 marks)

### What skills will I get from studying chemistry?

- Chemistry helps you to develop research, **problem solving** and analytical skills. It helps to you challenge ideas and show how you worked things out through logic and step-by-step reasoning. Chemistry often requires **teamwork** and **communication skills** too, which is great for project management.

### What careers is chemistry good for?

- Chemistry will help you get ahead in most **STEM** (science, technology, engineering and maths) careers and more besides.
- Chemistry is an important subject for careers in: **medicine**, environmental science, **engineering**, toxicology, **veterinary**, developing consumer products, metallurgy (studying how metals behave), space exploration, developing perfumes and cosmetics, dentistry, pharmaceuticals, energy, teaching, science writing, **software development** and research.

