

# Advanced CHEMISTRY

**EXAM BOARD:** Edexcel

## AIM OF THE COURSE

A Level Edexcel Chemistry enables students to obtain a full A-level after two years of study. Edexcel offer a modern chemistry course which is designed to allow a smooth transition from GCSE Science. Chemistry A Level has always proven extremely popular as the course is demanding, rigorous, inclusive and empowering.

### Provisional Course Entry Requirements

A minimum of two grade 6s or above in GCSE Science, preferably grade 6 or above, a grade 6 in Maths and an average GCSE points score of at least 5.5

## YEAR 12 SUMMARY

**Core Inorganic and Physical Chemistry:** In this module you will learn about the structure of the atom, the importance of atomic masses, formulae and equations, chemical bonding and structure and trends and patterns in the periodic table. This unit also introduces redox reaction and the importance of quantitative chemistry by focusing on formulae, equations and amounts of substance.

**Core Organic and Physical Chemistry:** The basic ideas that underpin organic chemistry building on Unit 1 with simple organic molecules such as alkanes, alcohols and haloalkanes. Students also look at important groups in the Periodic table as well as metal extraction and Analytical techniques. Areas of physical chemistry include energy changes in chemical reactions, rate of reaction and reversible reactions. Assessment of this paper also includes aspects from Paper 1.

## YEAR 13 SUMMARY

**Paper 1: Advanced Inorganic and Physical Chemistry:** In addition to the content listed for Year 12, students also gain a deeper knowledge and understanding of analytical techniques, Kinetics, Equilibria and Acids, Bases and Buffers and Redox reactions. There is also focus on Transition Metals as an important group in the Periodic Table.

**Paper 2: Advanced Organic and Physical Chemistry:** In addition to the content listed for Year 12, students will look more extensively at Organic Chemistry by considering more organic groups and their reactions and will gain a deeper understanding of analytical techniques and their development.

**Paper 3: General and Practical Principles in Chemistry:** This further assesses investigative and practical skills from any aspect of the curriculum and is synoptic in nature. In addition to this, students will achieve a separate Practical Endorsement from completing ongoing practical skills capability assessments over the two years of the course.

## CAREER PROSPECTS

As well as a respected academic subject in its own right, which can be taken as a single degree subject at University, Chemistry is an essential subject for studies in areas such as Medicine, Pharmacy, Dentistry, Forensic Science and Environmental Sciences. Other typical career routes from Chemistry include Engineering, Materials Science and Biotechnology.