

CHEMISTRY



Course information

Exam board: OCR Chemistry A

Key topics on A Level specification

Organic Chemistry: Moles, Alkanes, Alkenes, Haloalkanes, Amines, Arenes, Carbonyls, Carboxylic Acids, Esters, Analysis.

Physical Chemistry: Atomic Structure, Bonding, Redox, Kinetics, Equilibrium, Thermodynamics, Acids and Buffers, Electropotentials, Transition Metals

Skills

The course aims 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.

Assessment

Three examinations at the end of Year 13:

1. Periodic table, elements and physical chemistry, 2 hours 15 min
2. Synthesis and analytical techniques, 2 hours 15 min
3. Unified chemistry, 1 hour 30 min

All papers contain questions related to practical chemistry. Papers 1 and 2 contain some multiple choice questions.

In addition, students can receive Practical Endorsement. This is awarded if the student completes compulsory practical tasks over the two years of study and demonstrates the necessary skills.

Complementary Subjects

Maths and other Sciences

Languages – degree courses which have a year abroad will link the two

Geography

What do students go on to study at University?

Chemistry, Natural Science, Engineering, Medicine, Dentistry, Veterinary Science, Biomedical Sciences, Geology, Maths.

Extension opportunities

- **Cambridge Chemistry Challenge**
Sessions run throughout the year to prepare for a fiendishly difficult examination at the end of Lower Sixth. The exam is set by Cambridge University and requires students to apply their knowledge to novel questions.
- **Chemistry Olympiad**
Sessions run throughout the year to prepare students for the International Chemistry Olympiad examination in February.
- **Young Analyst**
The Royal Society of Chemistry's Lower Sixth Young Analyst competition is run in house for all students to compete to be regional winners and for a place in the national final.
- **Outreach Events**
Sixth Form students have the opportunity to exhibit at Science and Sustainability events in the North West. Coming up with their own ideas, creating resources and talking to the public.

Suggested reading:

Some students benefit from completing a Moles Workbook before starting the course. These are available by request.

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