

Chemistry A Level

Entry Requirement: Grade 8 in either Chemistry or Science & Additional Science

Awarding Body: AQA

The aims of the specification should encourage candidates to:

- Develop essential knowledge and understanding of the concepts of chemistry, and the skills needed for the use of these in new and changing situations.
- Develop an understanding of the link between theory and experiment.
- Be aware of how advances in information technology and instrumentation are used in chemistry.
- Bring together knowledge of ways in which different areas of chemistry relate to each other.

Year 1

Physical chemistry

- Atomic structure
- Amount of substance
- Bonding
- Energetics and Kinetics
- Chemical equilibria and Le Chatelier's principle
- Oxidation, reduction and redox equations

Inorganic chemistry

- Periodicity
- Group 2, the alkaline earth metals and Group 7(17), the halogens

Organic chemistry

- Introduction to organic chemistry
- Alkanes and Halogenoalkanes
- Alkenes and Alcohols
- Organic analysis

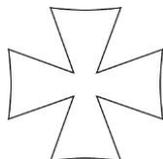
Year 2

Physical chemistry

- Thermodynamics
- Rate equations
- Equilibrium constant K_p for homogeneous systems
- Electrode potentials and electrochemical cells
- Acids and bases

Inorganic chemistry

- Properties of Period 3 elements and their oxides
- Transition metals
- Reactions of ions in aqueous solution



Organic chemistry

- Optical isomerism
- Aldehydes and ketones
- Carboxylic acids and derivatives
- Aromatic chemistry
- Amines
- Polymers
- Amino acids, proteins and DNA
- Organic synthesis
- Nuclear magnetic resonance spectroscopy
- Chromatography

A level Assessment

3 Exams taken May/June of Year 13

Paper 1 *Written exam: 2 hours - 35% of A-level*

- Relevant physical chemistry topics
- Inorganic chemistry
- Relevant practical skills

Paper 2 *Written exam: 2 hours - 35% of A-level*

- Relevant physical chemistry topics
- Organic chemistry
- Relevant practical skills

Paper 3 *Written exam: 2 hours - 30% of A-level*

- Any content
- Any practical skills
- 30 multiple-choice questions

In addition, there will be a certificate awarded to students for demonstrating their practical skills throughout the course, by completing 12 required practicals.

Who should I contact for more information?

Miss Savage, Head of Chemistry

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