



# Chemistry

## Advanced Level



Exam Board: AQA

### Entry Requirements:

Students will be expected to have at least grade B/6 (preferably grade A or above) in GCSE Science/Chemistry and a B/6 in GCSE Mathematics.

*"A student who studies Chemistry will build on the knowledge and understanding of Chemistry developed at GCSE level. They will develop imaginative, logical and critical thinking skills and will learn to demonstrate their wider application of chemistry. To be successful at A level, students will have a good grasp of Mathematics and be able to use this Maths knowledge to solve problems."*

A-Levels have changed.

The government has introduced new regulations for subject content and assessment. The new regulations apply to all exam boards. These are the main changes for A-level Chemistry.

### Structure

- Changing from modular to linear assessment, with all exams at the end of the course.

### Exams

- New assessment objectives.
- The minimum total number of hours for exams is 6 hours for A-level.

***20% of the total A-level marks require the use of Level 2 (Higher tier GCSE) mathematical skills.***

### Practical work

- There will be **no** internal assessment that leads to marks that contribute towards the A-level grade. In other words, no coursework or controlled assessment.
- Practical work will be assessed in the written papers. 15% of the total A-level marks will be for practical knowledge and understanding.
- A separate 'endorsement' of practical work will be assessed by teachers. This will not be graded. If students pass, it will be reported on their certificate, otherwise it will not be reported.

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# AQA Chemistry: A-level subject content

You can see the detailed subject content in the A-level specification at:

[aqa.org.uk/chemistry-guide](http://aqa.org.uk/chemistry-guide)

## Practical

AQA provide a list of practical activities that students must carry out. Exam questions will be based on these practicals.

## Course structure

AQA have arranged the specification into the traditional three branches of physical, inorganic and organic chemistry.

## First year of A-level Physical chemistry

Including atomic structure, amount of substance, bonding, energetics, kinetics, chemical equilibria and Le Chatelier's principle.

## Inorganic chemistry

Including Periodicity, Group 2 the alkaline earth metals, Group 7(17) the halogens.

## Organic chemistry

Including introduction to organic chemistry, alkanes, halogen alkanes, alkenes, alcohols, organic analysis.

## Second year of A-level

### Physical chemistry

Including thermodynamics, rate equations, equilibrium constant ( $K_c$ ) for homogeneous systems, electrode potentials and electrochemical cells.

### Inorganic chemistry

Including properties of Period 3 elements and their oxides, transition metals, reactions of ions in aqueous solution.

### Organic chemistry

Including optical isomerism, aldehydes and ketones, carboxylic acids and derivatives, aromatic chemistry, amines, polymers, amino acids, proteins and DNA, organic synthesis, NMR spectroscopy, chromatography.