

# SCIENCE

## Chemistry



**Examination Board:** AQA  
**Subject Leader(s):** Mrs AM Bentley



### Course Structure

Unit	Topics/Unit Title	Assessment	A Level (%)
1	Inorganic and Physical Chemistry	External examination 2h	35
2	Organic and Physical Chemistry	External examination 2h	35
3		External examination 2h	30
4	Practical endorsement in chemistry	Internally assessed pass/fail	N/A

At least 15% of the marks for A-level Chemistry are based on what you learned in your practicals.

### What does the course involve?

#### AS Chemistry and first year

##### 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, halogenoalkanes, alkenes, alcohols, organic analysis.

#### Second year of A level

##### Physical chemistry

Including thermodynamics, rate equations, the equilibrium constant  $K_p$ , 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.

## Further Study/Employment Prospects

According to [bestcourse4me.com](https://www.bestcourse4me.com), the top five degree courses taken by students who have an A-level in Chemistry are:

- Chemistry
- Biology
- Pre-clinical medicine
- Mathematics
- Pharmacology.

## Possible Career Options

Studying an A-level Chemistry related degree at university gives you all sorts of exciting career options, including:

- Analytical chemist
- Chemical engineer
- Clinical biochemist
- Pharmacologist
- Doctor
- Research scientist (physical sciences)
- Toxicologist
- Chartered certified accountant
- Environmental consultant
- Higher education lecturer
- Patent attorney
- Science writer

## Entry Requirements

GCSE Chemistry/Science grade 6

- Ideally you will have studied HIGHER tier mathematics and have a grade 5 or equivalent in English.
- An enthusiasm for both the practical and theoretical aspects of chemistry.
- An ability to meet deadlines, discuss and share ideas and work safely in a laboratory.