



Welcome to KC1

AQA A Level Chemistry

Why study Chemistry?



- Chemistry is the study of matter and energy and the interaction between them.
- Chemistry is everywhere in the world around you! It's in the food you eat, clothes you wear, water you drink, medicines, air, cleaners... you name it.
- Chemistry sometimes is called the "central science" because it connects other sciences to each other, such as biology, physics, geology, and environmental science.

Why study Chemistry?



- **Discover** how the world really works — from medicines to materials.
- **Develop** sharp problem-solving and logical thinking skills.
- **Essential** for careers like medicine, dentistry, pharmacy, and veterinary science.
- **Enjoy** hands-on experiments that make chemistry come alive.
- Highly **respected** by universities and employers alike.
- **Works** brilliantly alongside Biology, Physics, and Maths.
- **Be part of** solving real-world challenges — from clean energy to sustainability.

Course overview



Physical Chemistry

Atomic structure
Amount of substance
Bonding
Energetics
Kinetics
Chemical equilibria
Redox
Thermodynamics
Rate equations
Equilibrium constant
Electrode potentials
Acids and bases

Inorganic Chemistry

Periodicity
Group 2- The alkaline earth metals
Group 7- The halogens
Properties of period 3 elements
Transition metals
Reaction of ions in aqueous solution

Organic Chemistry

Introduction to organic chemistry
Alkanes
Halogenoalkanes
Alkenes
Alcohols

Organic Chemistry

Organic analysis
Optical isomerism
Aldehydes and ketones
Carboxylic acids and derivatives
Aromatic chemistry
Amines
Polymers
Amino acids, proteins and DNA
Organic synthesis
NMR spectroscopy
Chromatography

Course overview- 3 papers



Paper 1

What's assessed

Relevant Physical chemistry topics
Inorganic chemistry
Relevant practical skills

How it's assessed

Written exam: 2 hours
105 marks
35% of A Level

Questions

105 marks of short and long answer questions

Paper 2

What's assessed

Relevant physical chemistry topics
Organic chemistry
Relevant practical skills

How it's assessed

Written exam: 2 hours
105 marks
35% of A Level

Questions

105 marks of short and long answer questions

Paper 3

What's assessed

Relevant physical chemistry topics
Organic chemistry
Relevant practical skills

How it's assessed

Written exam: 2 hours
105 marks
30% of A Level

Questions

105 marks of short and long answer questions

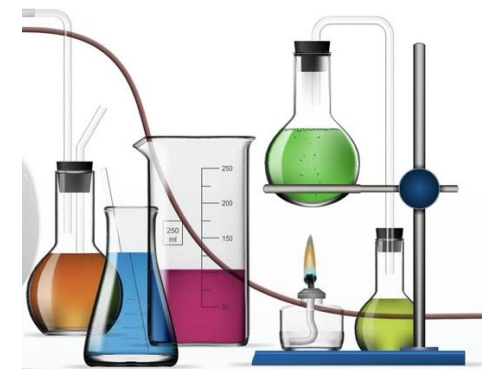
Practical endorsement



- Practical endorsement is an important part of your A level studies.
- Over the 2 years you will complete 12 required practicals and plenty of other practical work to develop your practical skills.
- You will achieve the practical endorsement at the end of your studies. This is especially important if you plan to study a science related subject a higher level.

What skills do you need?

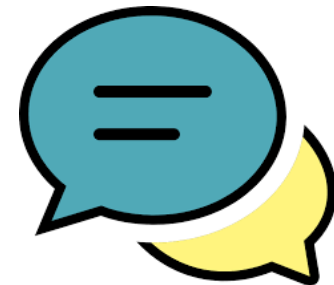
- Use the periodic table as a starting point for thinking
- Visualise physical and chemical processes
- Switch between representations when discussing formula
- Manipulate mathematical equations
- Relate observable phenomena to underlying concepts
- Write logical explanations without repetition or contradiction
- Communicate knowledge to others
- Time management and problem-solving skills
- Be able to collect and analyse data



What are the entry requirements?

- **Triple Science-** The ideal requirement is a 6 in Chemistry
- **Double Science-** The ideal requirement is a 6 6 in combined science.

What our students say...



“You gain a lot of transferable skills from this course, mainly, time management, meeting deadlines, revision techniques and teamwork.”

“My studies have not only enabled me to develop a greater depth of understanding of physical, inorganic and organic chemistry, but have advanced my practical laboratory, study and independent skills in a very supportive environment.”

“The skills I have developed in Chemistry has helped me with my other non-science-based A level subjects.”

“Studying chemistry has allowed me to move onto university to study medicine. I am grateful to the science department and everyone at KC1 for the support they gave me.”

Where it can take you... potential university courses

- Biochemistry
- Biomedical Sciences
- Chemical engineering, Chemistry
- Dentistry
- Environmental sciences
- Forensic science
- Geology
- Material sciences
- Medicine
- Optometry
- Pharmacy
- Physiotherapy
- Psychology
- Veterinary science



Where it can take you.... potential careers

- **Medicine and healthcare**- doctor, nurse, pharmacologist
- **Fast consumer goods**- quality controller, food scientist, market researcher
- **Energy and utilities**- Petroleum engineer, geochemist, mudlogger
- **Science and research**- research scientist, chemist, Forensic scientist
- **Engineering**- chemical engineer, civil engineer, mechanical engineer
- **Manufacturing**- food technologist, manufacturing engineer, manufacturing manager



What we offer



Great student experience



A positive learning environment



Opportunities to develop practical skills



Fully furnished laboratories



Highly qualified staff



A caring, inclusive science faculty



Access to online learning



A level Chemistry FAQs

Is there any coursework?

No formal coursework, but there's a "Practical Endorsement" — a pass/fail assessment of your lab skills across 12 required practicals.

How much maths is involved?

Around **20% of marks** involve maths- for example, calculations with moles, energy changes, and rates. A solid GCSE Maths background really helps.

What kind of practicals will we do?

You'll do hands-on experiments such as titrations, measuring enthalpy changes, investigating rates, and identifying unknown compounds.

What resources are recommended?

AQA A Level Chemistry Student Book (Oxford or CGP), CGP Revision Guides,
Online tools like *Physics & Maths Tutor*, *Save My Exams*, and *Seneca Learning*

What subjects go well with Chemistry?

Chemistry pairs well with Biology, Maths, and Physics- especially for science-based degrees and careers.



A level Chemistry FAQs

What skills will I gain?

You'll develop analytical thinking, data handling, problem-solving, and precision- all highly valued by universities and employers.

How much independent study is expected?

Around 4–6 hours per week outside lessons for note-taking, practice questions, and revision.

What careers can A-Level Chemistry lead to?

It's essential for medicine, pharmacy, chemical engineering, and veterinary science, and useful for careers in research, forensics, environmental science, and food technology.

How can I support my child with Chemistry?

Encourage consistent revision and organisation, Help them balance study with rest, Ask them to explain concepts to you - teaching helps learning, Check they're practising past exam questions regularly

How respected is A-Level Chemistry?

It's one of the most academically rigorous subjects, highly valued by universities and employers for developing logic, precision, and perseverance.



**All of the King Charles I Open
Evening resources can be
found by visiting the [school
website](#)**



**We look forward to welcoming
you to our classrooms in
September 2026**