



KINGSTON
GRAMMAR SCHOOL

FOUNDED 1561



CHEMISTRY AT A LEVEL

WHY CHOOSE CHEMISTRY?

Chemistry is the science of substances – how they behave, what properties they have and how they can be combined and transformed into other things. It is very much the central scientific discipline, applying physical laws to explain the diverse properties of materials and unlocking the secrets of life in the molecular workings of the cell. Studying Chemistry will give you a deeper understanding of the natural world and open doors to the further study of a wide range of degree courses, from traditional pure subjects to newer interdisciplinary fields.

WHAT MAKES A GOOD A LEVEL CHEMIST?

Successful chemists typically show curiosity about the natural world and a desire to understand how substances behave and why they exhibit their properties. They often appreciate the intellectual challenge of puzzles and enjoy solving problems.

Whilst A Level mathematics is no longer a requirement for the successful study of Chemistry, strong mathematical proficiency is a significant advantage, and advanced mathematics is essential for a serious study of any scientific discipline at university level.

Mathematics, Biology, Physics, Psychology, Economics, Geography and other numerate disciplines are good choices to complement Chemistry.

SPECIFICATION

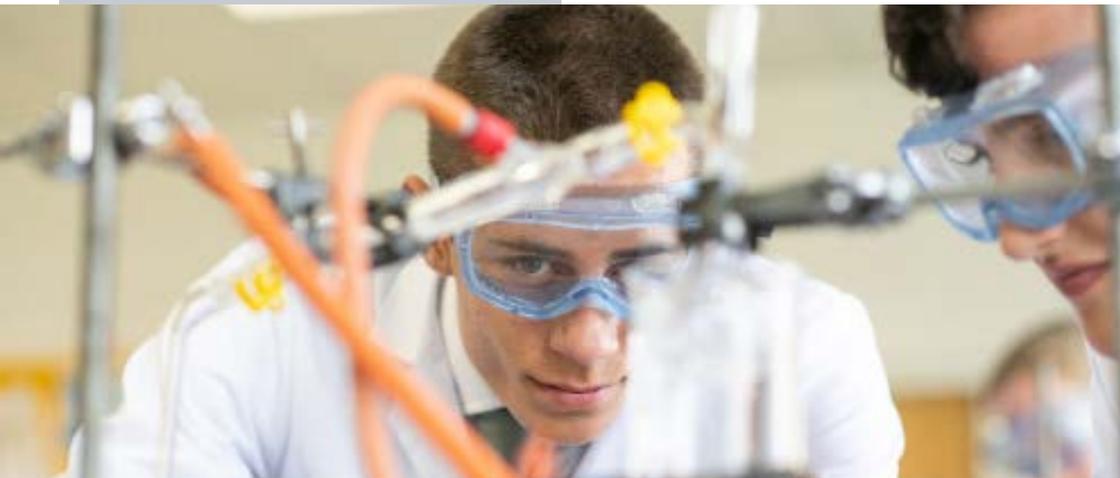
A Levels in Chemistry have recently changed and we now follow the Edexcel specification. We believe that this course offers both breadth and depth, being a firm foundation for those wishing to take the subject further, whilst also giving a good general grounding to those whose aspirations lie elsewhere.



HOW IS THE A LEVEL ASSESSED?

There will be three written papers, all of which are taken at the end of the Upper Sixth year. Papers 1 and 2 will both be worth 90 marks and will be timetabled for 105 minutes. Paper 1 will examine energetics, redox and transitions metals, whilst Paper 2 will examine organic chemistry and kinetics. These papers will have a mixture of question styles (up to 10 multiple choice questions and then shorter and longer response questions); each will constitute 30% of the overall mark.

Paper 3 will be worth 120 marks and will be timetabled for 150 minutes. It will draw on material from across the whole course and questions based on practical techniques will form half of the paper. It will also have a mixture of question styles, but is likely to contain more longer-response questions; it will constitute 40% of the overall mark.



PRACTICAL WORK

Competency in practical work will be internally assessed and will be reported as a pass/fail alongside the A Level grade. Students must complete 16 core practicals over the course of two years, but at KGS this forms part of a much wider programme of practical work as we believe that the development of practical techniques and an understanding of experiment design should be the cornerstone of any chemist's studies.



	2020	2019
A Level A* - B	89%	63%

ENTRY PROCEDURE

For external applicants

In common with other subjects at KGS, invitations for an academic interview are made based on performance in a written pre-test. In the test we are looking for basic knowledge about the subject, especially in the areas of atomic structure, chemical bonding and reactivity. We are also looking for proficiency in key skills, such as: working out chemical formulae; writing balanced symbol equations for simple chemical reactions; and carrying out basic chemical calculations using the concept of amount of substance (the mole).

We are aware that different GCSE specifications place different emphases on different areas and that not all students will have covered all these areas by the time they sit our admissions test. We do, therefore, ask students at the time of the test to indicate the course they are studying.

In the interview, we are looking for a combination of knowledge and understanding of GCSE Chemistry, along with a genuine interest in studying the subject in more depth.

The Chemistry Department at Kingston Grammar School seeks to give every student a thorough grounding in the principles of Chemistry, equipping them with the skills to understand the contributions that chemists make to modern life and enabling them to make informed contributions to discussions on scientific issues.

Lessons aim to impart a sound knowledge of the chemical world whilst encouraging curiosity and the desire to become independent and lifelong learners.



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