RGS
NEWCASTLE

INTRODUCTION TO

CHEMISTRY

at RGS









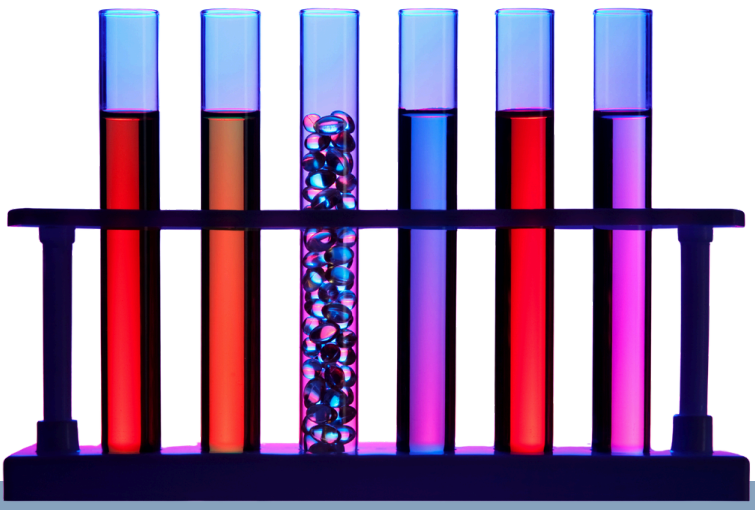


Chemistry at RGS is a subject that sparks curiosity, encourages experimentation and builds deep scientific understanding.

It helps students to make sense of the world around them - from understanding everyday materials and reactions to making informed decisions about health, the environment and technology.

The subject also enables students to develop analytical thinking, precision and resilience, which are valuable in many areas of life and work.

From Year 7 through to Year 13, students are immersed in a hands-on, intellectually stimulating environment that prepares them for academic success and future study in science-related fields.



YEAR 7 AND YEAR 8

Chemistry is taught as a practical subject from the very beginning. Students explore topics such as chemical and physical changes, separating mixtures, and acids and alkalis.

Each year culminates in a student-led investigation, where pupils design, conduct and evaluate their own experiments. These early experiences lay the foundation for confident, independent scientific enquiry.

YEAR 9 TO YEAR 11

Students follow the Edexcel IGCSE Chemistry course, which provides an excellent grounding in core chemical principles and prepares them for A-Level study.

With between three and five lessons per fortnight, students develop their understanding of atomic structure, bonding, energetics, rates of reaction and more. The course is assessed through two written papers at the end of Year 11.







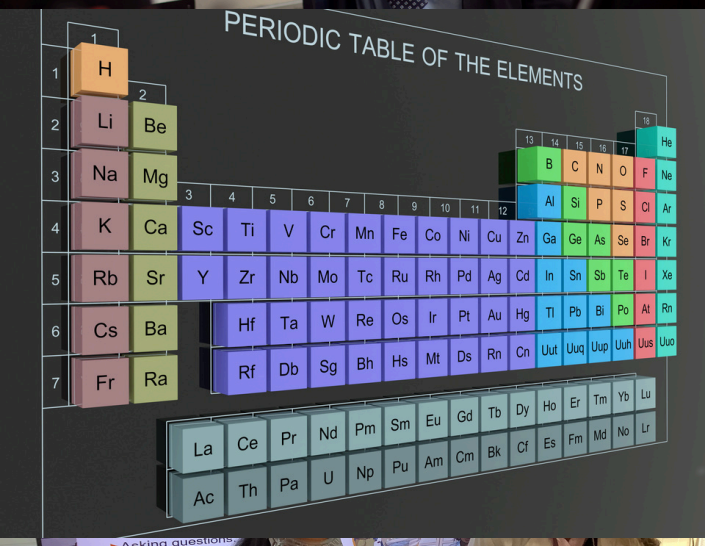


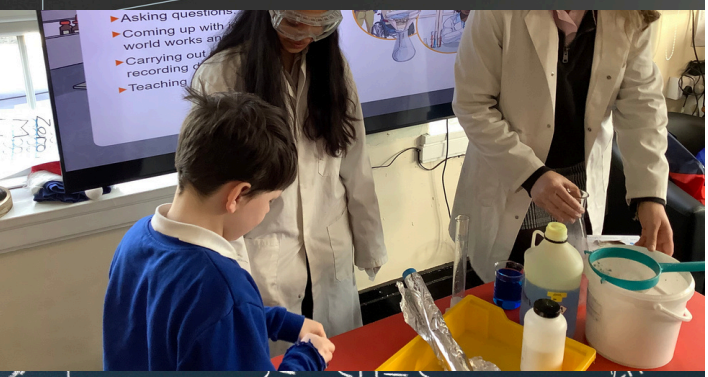


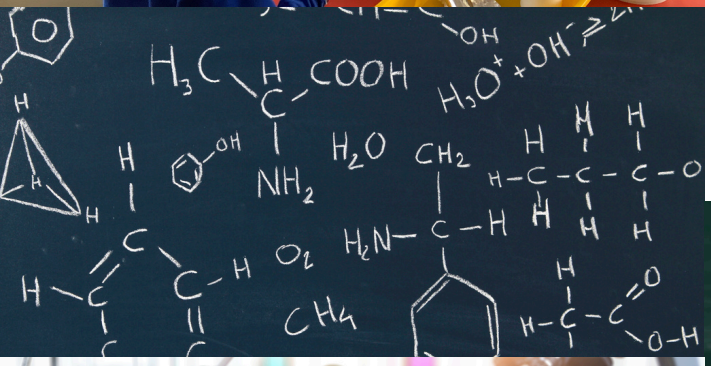


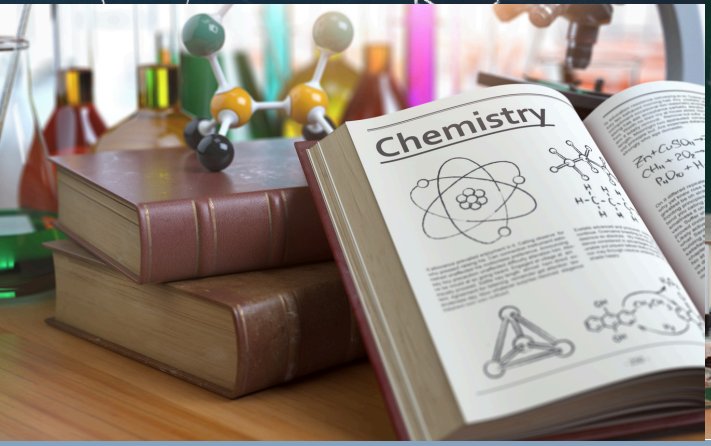
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YEAR 12 & YEAR 13

At A-Level, students study AQA Chemistry, taught by two teachers across 10 lessons per fortnight in Year 12, increasing to 11 in Year 13.

The course places strong emphasis on practical work and experimental evidence. Students complete the A-Level practical endorsement over two years, gaining valuable experience in planning, executing and evaluating complex experiments.

Many go on to study Chemistry, Medicine, Engineering and related subjects at top UK universities, while others pursue degrees in Veterinary Science, Pharmacology, Biochemistry, Environmental Science, Forensic Science and Chemical Engineering.

The analytical and problem-solving skills developed through Chemistry are also highly valued in fields such as Law, Finance and Data Science.

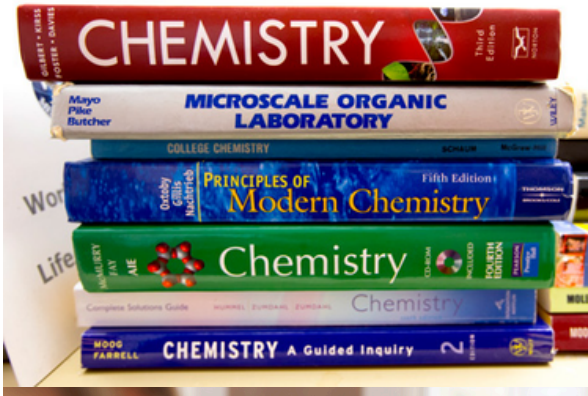


BRINGING CHEMISTRY TO LIFE



Teaching at RGS stands out for its extensive use of practical work, integration of digital learning, and personalised support.

Our team of 12 specialist Chemistry teachers and two technicians work across seven fully equipped laboratories, creating a vibrant and engaging learning environment.



Students typically work in pairs up to Year 11 and individually in Sixth Form, encouraging independence and confidence.



Since 2022, all students have been issued with personal digital devices, allowing us to enhance teaching with interactive quizzes, simulations and varied homework tasks.

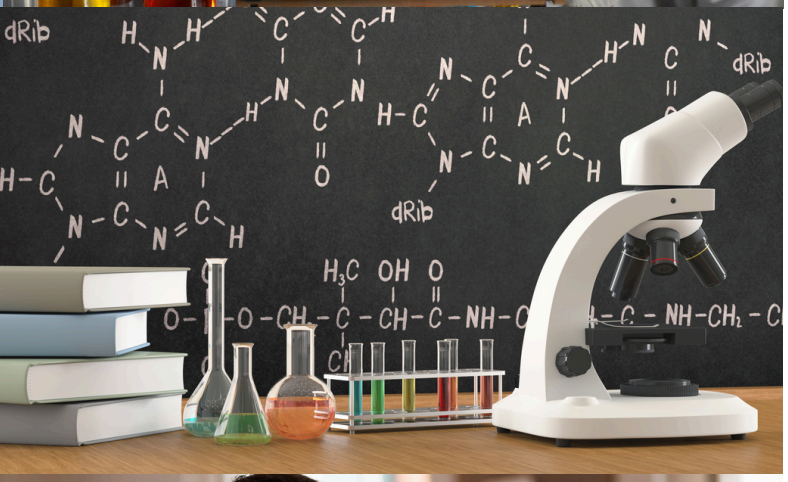


Our timetable enables teachers to get to know their classes well, adapting lessons to meet individual needs and provide appropriate challenge.

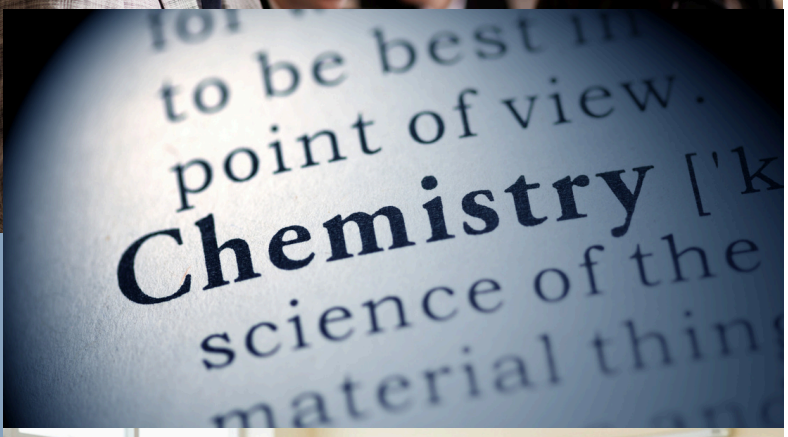














ACADEMIC SUPPORT & SUCCESS

Academic Support and Success The department has an excellent record of academic achievement.

A-Level Chemistry is a popular choice, and students are well prepared for competitive university courses.

Support is available through twice-weekly drop-in sessions, dedicated study groups and one-to-one help.

Sixth Form students also benefit from an extensive independent study programme designed to build the skills needed for higher education.

CO-CURRICULAR OPPORTUNITIES

Chemistry at RGS extends well beyond the classroom.

The Year 7 Science Club meets fortnightly for extra experiments, while Sixth Form students lead ChemSoc, a weekly extension group as part of the Complementary Studies Programme.

Students also take part in in-house competitions and national challenges such as the Cambridge Chemistry Challenge and the Royal Society of Chemistry Olympiad.









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Whether it's using a Bunsen burner for the first time in Year 7, decoding the periodic table in Year 9, or synthesising aspirin in Year 13, Chemistry at RGS offers a journey of discovery, challenge and achievement.

If you would like further information about Chemistry at RGS please contact Mrs Sophie McDougall, Head of Chemistry via s.mcdougall@rgs.newcastle.sch.uk

