

## Chemistry

Chemistry is essential to our modern society. Apart from the fascination of understanding how things around (and inside) us work at the molecular level, chemistry affects every one of us, every day of our lives, from the petrol in our cars to the ink on this page.

Some people regard chemistry as a dirty, non-green subject. They are quite wrong! The reality is that if you wish to do something about, for example, environmental pollution, a thorough understanding of chemistry is essential. Today's chemists are at the forefront in helping to control, reduce and avoid pollution.

If you enjoy the interaction of atoms and molecules, along with the bangs, the colours, the smells, and making new substances then AS and A2 Chemistry should appeal to you.

Chemistry A-level is demanding and complements subjects such as Biology, Physics, Maths and Geography. If you study A-level Chemistry then you should be able to ask "Why?" and get a good answer. You will find AS Chemistry explains chemical ideas mostly using words, while A2 Chemistry explains chemical ideas using Maths, while broadening the AS topics studied.

AS and A2 level Chemistry is particularly important if you want to study Medicine, Veterinary Science or Biochemistry at university. It is also highly regarded by admissions tutors in many other subjects, including Law, due to its demands for logical thinking. It is also useful if you want to go on and study subjects such as Geology, Physical Geography, Engineering, or Material Science. Job prospects are excellent in all of areas of Chemistry. In addition, the ability of Chemistry graduates to solve problems using logical thinking, analyse data and carry out research means they are valuable in all types of employment and are sought after by a wide range of industrial, environmental and financial companies.

At Reigate Grammar School Chemistry sets are small and friendly. We follow the new EdExcel course which has been designed to incorporate different aspects of contemporary chemistry, such as climate change, green chemistry, pharmaceuticals and chemistry research alongside the more traditional topics covered at GCSE.

Experimental work is examined by internal practical assessment throughout the two years of the course. The method of teaching involves a mixture of discussions and experimental work.

The first year of the course is divided into three Units:

Unit 1 – Includes topics on Atomic Structure, Energetics and Chemical bonding.

Unit 2 – Includes topics on the Periodic Table, Kinetics, Equilibria and Green Chemistry.

Unit 3 – Internally assessed experimental work.

In the second year three further units are studied:

Unit 4 – Includes topics on the Entropy, Organic Chemistry and Spectroscopy.

Unit 5 – Includes topics on the Transition Metals and Organic Synthesis.

Unit 6 – Internally assessed experimental work.