CHEMISTRY

"Nothing in life is to be feared. It is only to be understood" Marie Curie

Current Teaching Staff:

Dr T Sweet - Head of Department

Dr J Cattell, Mr A Walker

Examination board and syllabus: OCR A

Entrance requirement:

Separate Science GCSE students: Grade 7 or above in chosen A Level science. Grade 6 or above in other two sciences.

Combined Science GCSE students: Grade 6 or above in GCSE Combined Science*, with an overall Grade 7 or above in chosen science and Grade 6 or above in the other two science components.

You will also need to have at least a Grade 7 in Mathematics.

*If a student who currently attends another school achieves less than two Grade 7s, we will ask them to arrange for their school's Examination Officer to complete a form to provide evidence of their performance in each Science subject

A Level outline:

The syllabus is divided into three sections:

Inorganic chemistry: This covers the Periodic table, group chemistry and the transition metals.

Organic Chemistry: The reactions and uses of the alkanes, alkenes, alcohols, haloalkanes, carbonyl compounds, arenes, amines, amino acids, synthesis and spectroscopy.

Physical Chemistry: This looks at the structure of the atom, calculations using the mole, bonding, energetics, calculation of equilibrium constants, and thermodynamics

Practical skills are assessed throughout the course and in the written examination papers.

Assessment:

Three written papers are taken at the end of year 13 to gain the A level qualification. Practical skills are assessed throughout the course as well as in the written examinations and a certificate is awarded if the standard required to pass the skills is met.

The teaching of the A level course in divided between two specialist Chemistry teachers. As a practical subject, the use of practical work to develop understanding and skills will play a major role in the delivery of the work. Lessons also involve the opportunity to research and present work on different topics, group work, practice of knowledge and application, and the practice of examination question technique.

To ensure a good understanding of the work covered in lessons, students will be asked to complete tasks in their own time. These tasks take the form of topic worksheets, examination questions, writing conclusions and evaluations using experimental data and carrying out research. Students should also be motivated to broaden their knowledge beyond the curriculum by reading scientific publications, such as Chemistry Review, and viewing science programmes.

Chemistry help is offered during the weekly lunchtime chemistry surgery to all students and staff are always available at other pre-arranged times to support students.

The ability to work independently, seek help early on and complete lots of practice examination questions which help to build confidence in the subject, are vital to ensure success in Chemistry.

Students will need to:	Compulsory	Optional
Attend extra sessions before examinations		X
Read widely around the subject	X	
Make extensive notes	X	
Carry out detailed revision for regular tests beyond public examinations	X	
Be willing to lead class discussions	X	

CAREERS

Chemistry is needed to gain a university place in areas such as Medicine, Veterinary Science and others. It is a subject that is compatible with other sciences, Geography and Mathematics. An A level in Chemistry indicates an ability to work methodically and analyse and evaluate effectively; skills much sought after in many jobs, not just in the scientific field.