



CHARTERS

— SCHOOL —

SCIENCE - COMBINED AND TRIPLE

The Science Faculty believes that science is accessible to all students. We provide two courses, 'Combined Science' and 'Triple Science', both of which are taught by specialist teachers and delivered through dynamic learning opportunities to suit students of all abilities and aspirations.

Both courses are suitable preparation for A level study.

Combined Science

Most students are placed on the Combined Science course. They will study Biology, Chemistry and Physics in nine periods a fortnight and will receive two GCSE grades at the end of the course. The grades are linked and based on the combined score across all the science exam papers (details below). Students are taught in classes which reflect the tier for which they will be entered (Foundation – grades 1-5, Higher – grades 4-9), allowing for lessons that are tailored towards the needs of each group.

Triple Science

Those students who are already certain they would like to follow a Science based career or are opting to take Science subjects at A level and then a Science based course at university (such as Medicine, Engineering or Veterinary Science) might wish to apply to take Triple Science. This covers the same material as the Combined course, but to a greater depth. Students study Biology, Chemistry and Physics in fourteen periods a fortnight and will receive three GCSE grades at the end of the course (details below). If students do apply to take Triple Science, then it will replace one of their four option choices. This will be discussed with a member of the Senior Leadership Team once all option choices have been made.

What will be studied during the course?

Both courses aim to develop students' appreciation for the science that surrounds them. Examinable material is taught within real-world contexts, with strong links to current affairs and career paths.

- In Biology, students will get a good understanding of the living world, from how a basic cell works to the complexity of an ecosystem.
- In Chemistry, students will discover how chemistry has developed over time and investigate the importance of chemical reactions in everyday life.
- In Physics, students will discover how the physical world is influenced by forces, energy, waves and magnetism.

There is also a strong emphasis on learning through practical work, aiming to develop practical, logical and critical thinking skills. Both the 'Combined' and 'Triple' courses contain 'required practicals', which students will be questioned upon in their written exams. These are taught in detail, alongside additional practical work to develop skills and to illustrate theoretical content.

How will the work be assessed?

Both Science courses are linear, meaning students will sit all their exams at the end of the course (i.e. no coursework). The table below details the similarities and differences between the two courses.

	Combined	Triple
Examinations	6 written exams <ul style="list-style-type: none"> • Biology x2 • Chemistry x2 • Physics x2 	6 written exams <ul style="list-style-type: none"> • Biology x2 • Chemistry x2 • Physics x2
Duration	<ul style="list-style-type: none"> • Each exam is 1 hour 15 minutes. • All results are combined to give two GCSE grades, meaning each exam is worth 16.7% of the overall result. 	<ul style="list-style-type: none"> • Each exam is 1 hour 45 minutes. • The results from each science are combined individually to give three separate science grades. • Each exam is worth 50% of each science's overall result.
Structure of Exam	Multiple Choice Questions Structured Questions Short Answer Questions (1 - 3 marks) Open Response Questions (4 - 6 marks)	
Qualifications	2 GCSE Grades, both of which are labelled as 'Combined Science'	3 GCSE Grades, one for each science ('Biology', 'Chemistry' & 'Physics')

Where can it lead?

There continues to be a skills shortage in the UK science sector. With this in mind, studying science prepares students for a variety of future careers that they may not have considered yet. Science both feeds a love of learning and the *Scientific Method* fosters thinking and analytical skills that are applicable in all walks of life.

Both courses develop skills which prepare students for a future in their society and any career path they ultimately choose, along with providing a strong foundation for a variety of specialised scientific careers (including roles that may not even exist yet – a consequence of working in a field that is constantly evolving!).

Those who choose Combined Science can still go on to study A level Science subjects; currently the entry requirement is a Combined Grade 7-6 for Chemistry and Biology, and 7-7 for Physics. The entry requirements for Triple Science students are slightly lower to reflect the additional complexity of the material covered; we currently ask for a Grade 6 in Chemistry and Biology, and a Grade 7 for Physics.