Stretford Grammar School
Aspirat primo fortuna labori

Science (Combined Science)

This is compulsory for all students (although students may follow the Option for the Separate Sciences).

Examination Board: AQA
Examination Code: Combined Science 8464

Outline of the Course

- Students will follow a broad, coherent course of study that adds to their knowledge and understanding of the living, material and physical worlds.
- Students will develop a range of transferable skills by undertaking practical activities to help prepare them for the examination questions based on the 21 Required practical investigations (7 in Biology, 6 in Chemistry, 8 in Physics). They will learn to make observations, analyse data appropriately and explain conclusions in terms of scientific concepts.

What will you learn?

Biology:

- Cell biology
- Organisation
- Infection and response
- Bioenergetics
- Homeostasis and response
- Inheritance, variation and evolution
- Ecology

Chemistry:

- The Periodic table
- Chemical structures and their properties Chemical reactions and how to analyse substances
- Chemical changes
- Electrolysis
- Organic chemistry
- Chemistry of the atmosphere including human influences on this and sustainable development.

Physics:

- Energy
- Electricity

	• Particle model of matter • Atomic structure • Forces • Waves • Magnetism and Electromagnetism • Students will learn how to apply mathematical concepts to explain the Physical concepts learnt.
How will I be assessed?	Students will sit 6 one hour and 15 minute written examinations: two examinations per Science subject. There will be a mixture of multiple choice, structured, closed short answer and open responses that will require extended writing. At least 15% of the marks will be allocated for the recall of facts, 15% of marks will be related to the required practical activities and 60% of the marks will be for the application of knowledge and understanding. The remaining marks will be allocated for applying Mathematical principles.
Mark Breakdown	Each of the 6 written papers is worth 16.7% of the final Combined Science GCSE result.
Website links	http://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464
Key Dates	Exams: May of Year 11 Required practical activities will be covered throughout the two year course.
Further Information	Mrs. L. Wallis – Director of Science l.wallis@stretfordgrammar.com Subject Teachers: – please see the separate Biology, Chemistry and Physics pages of this booklet. Students tend to follow the Combined Science course if they do not intend to pursue Science subjects at A Level **or** they want to take a range of other option subjects such as Music, Art, MFL and Humanities. Students can still progress from Combined Science to A Level Science courses.

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What can I do after I have completed the course?	A range of transferable skills are developed during the course such as analytical / data analysis skills, evaluation skills, communication skills and practical skills which will assist students in a range of careers or A Level choices. This course is suitable to progress to A Level Sciences