

GCSE COMBINED SCIENCE

(2 GCSEs across all 3 sciences)



Examination Board: AQA
Subject Leader(s): Mrs McGrath, Mrs Bentley, Mr C Proudlove



Course Structure

| Topics/Unit Title | Assessment | Weighting(%) |
|-------------------|-----------------|--------------|
| Biology paper 1 | Exam 75 minutes | 16.7% |
| Biology paper 2 | Exam 75 minutes | 16.7% |
| Chemistry paper 1 | Exam 75 minutes | 16.7% |
| Chemistry paper 2 | Exam 75 minutes | 16.7% |
| Physics paper 1 | Exam 75 minutes | 16.7% |
| Physics paper 2 | Exam 75 minutes | 16.7% |

What does the course involve?

Students studying Combined Science will study modules of Biology, Chemistry and Physics. The course takes a logical and coherent journey through familiar and new content. Required practical investigations are an integral part of the science pathway testing students application of science techniques & principles in the exam. This science pathway is worth 2 GCSEs.

A significant amount of the Combined Science course is taught in year 9, so it is very important for students to save their year 9 work for reference in years 10 and 11

| Summary of Content | | |
|--|---|--|
| Biology | Chemistry | Physics |
| <ul style="list-style-type: none"> • Cell biology • Organisation • Infection & Response • Bioenergetics • Homeostatis and response • Inheritance, Variation and evolution • Ecology | <ul style="list-style-type: none"> • Atomic Structure and the periodic table • Quantitative chemistry • Chemical changes • Energy changes • The rate and extent of chemical change • Organic chemistry • Chemical analysis • Chemistry of the Atmosphere • Using Resources | <ul style="list-style-type: none"> • Forces • Energy • Waves • Electricity • Magnetism & Electromagnetism • Particle Model of Matter • Atomic Structure |

Combined science will have a 17 point grading scale, from 9-9, 9-8 through to 2-1, 1-1. All Science GCSEs will have Higher and Foundation tier papers.

Further Study/Employment Prospects

This course allows progression to traditional Science A-Levels and to a wider range of science-based vocational courses such as Health Care.

Skills you will develop

We know that practicals are not only one of the most engaging parts of a Science Education but are also essential for students' understanding of scientific theory. There are 21 required practicals spread throughout the course, as well as many other opportunities to develop practical skills and manual dexterity, independent learning and the ability to participate in group work. There is a need for a certain level of mathematical competence and the necessary skills will be reinforced during science lessons.

GCSE TRIPLE SCIENCE

5 extra lessons as a top up leading to individual GCSEs in Biology, Chemistry & Physics (3 GCSEs in total)



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Course Structure

| Unit | Topics/Unit Title | Assessment | Weighting(%) |
|------|-------------------|------------------------|--------------|
| 1 | Biology Paper 1 | Exam 1 hour 45 minutes | 50% |
| 2 | Biology Paper 2 | Exam 1 hour 45 minutes | 50% |
| 1 | Chemistry Paper 1 | Exam 1 hour 45 minutes | 50% |
| 2 | Chemistry Paper 2 | Exam 1 hour 45 minutes | 50% |
| 1 | Physics Paper 1 | Exam 1 hour 45 minutes | 50% |
| 2 | Physics Paper 2 | Exam 1 hour 45 minutes | 50% |

What does the course involve?

Studying the separate sciences means students will cover more content than GCSE Combined sciences. The new GCSEs in Biology, Chemistry and Physics will provide great preparation for A-Levels in those subjects, without overlapping content.

There are 8 required practicals for each subject and each subject will be externally assessed through two exam papers. These exams will assess knowledge and understanding from different topics.

| Summary of Content | | |
|--|---|--|
| Biology | Chemistry | Physics |
| <ul style="list-style-type: none">• Cell biology• Organisation• Infection & Response• Bioenergetics• Homeostatis and response• Inheritance, Variation and evolution• Ecology | <ul style="list-style-type: none">• Atomic Structure and the periodic table• Quantitative chemistry• Chemical changes• Energy changes• The rate and extent of chemical change• Organic chemistry• Chemical analysis• Chemistry of the Atmosphere• Using Resources | <ul style="list-style-type: none">• Forces• Energy• Waves• Electricity• Magnetism & Electromagnetism• Particle Model of Matter• Atomic Structure |

The grades will be 9 – 1 for Biology, Chemistry and Physics

All Science GCSEs will have Higher and Foundation tier papers.

Further Study/Employment Prospects

This course allows progression to traditional Science A-Levels and to a wider range of science-based vocational courses such as Health Care.

Skills you will develop

We know that practicals are not only one of the most engaging parts of a Science Education but are also essential for students' understanding of scientific theory. There are 28 required practicals spread throughout the course, as well as many other opportunities to develop practical skills and manual dexterity, independent learning and the ability to participate in group work. There is a need for a certain level of mathematical competence and the necessary skills will be reinforced during science lessons.

Students studying Triple Science will have 14 hours of science lessons a fortnight, equating to just under a third of their timetable. Triple science students tend to be those with a passion for the subject and/or driven to attain grades in some of the most challenging GCSEs available in order to access high level A Level and Degree courses in the future.