# Triple Science (GCSE Biology, GCSE Chemistry and GCSE Physics)

Should students opt to study triple science, they will be working towards achieving 3 separate science GCSEs – GCSE Biology, GCSE Chemistry and GCSE Physics. To do this they will use both the core/dual science lessons other students have and also one set of options lessons. Triple science follows AQA GCSE Biology, Chemistry and Physics specifications.

This course aims to provide students with a broad knowledge of the key concepts in Biology, Chemistry and Physics. If follows a similar structure to Dual Award Science but offers more depth into each topic and some additional topics also. The goal is that students can apply what they learn, so they can offer well thought out and constructed opinions on scientific issues as well as apply any science needed to understand the world around them. Alongside this, the course aims to develop scientific skills such as planning, correct and safe use of scientific apparatus, recording of evidence, presenting scientific information, developing conclusions and critically evaluating scientific technique and data. Students who opt for triple science need to have an interest in the subject and a desire to learn more about explaining the world around them. Science is an essential subject for all post-16 pathways, triple science is particularly useful for anyone one wishing to study Biology, Chemistry, Physics or Engineering at A Level.

## Topics

Students will study the following units over the length of the course:

- Biology: Cell Biology; Organisation; Infection and Response; Bioenergetics; Homeostasis and Response; Inheritance, Variation and Evolution and Ecology.
- Chemistry: Atomic Structure and the Periodic Table; Bonding, Structure and the Properties of Matter; Quantitative Chemistry; Chemical Changes; Energy Changes; Rate and Extent of Chemical Change; Organic Chemistry; Chemical Analysis; Chemistry of the Atmosphere and Using Resources
- Physics: Energy; Electricity; Particle Model of Matter; Atomic Structure; Forces; Motion; Waves and Magnetism and Electromagnetism, **Space Physics**.

Each unit has additional content to Dual Award, and Space Physics is an additional topic.

## Course Structure

Students can complete each of the three science GCSEs at either higher or foundation level, they are independent from each other. A higher-grade ranges from 4-9 and a foundation grade ranges from a 1-5. Much of the content is the same and students will be entered for the tier which we feel will give them the best possible outcome regardless of set or target and students may be moved up or down tiers depending on performance throughout the duration of the course.

Each of the three GCSEs is assessed by two exams, which are 1hr 45 minutes in length (a total of 6 x 1hr45min exams). Each GCSE is 100% assessed on these 2 external exams at the end of the course and a final grade will be a combined total of the scores from each exam. They will receive three independent grades.

## Additional Information & Who to contact

- For more information please follow the link to the course specification on the exam board website for each of the three specialisms:
  https://www.aqa.org.uk/subjects/science/gcse/biology-8461
  https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462
  https://www.aqa.org.uk/subjects/science/gcse/physics-8463

- If you require any further information or have any questions then please contact Mrs V Fenwick, Head of Science via email – Victoria.Fenwick@consilium-at.com

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