

GCSE Science

Examination Board: AQA

Course Specification: 8461 (Biology), 8462 (Chemistry) and 8463 (Physics), 8464 (Combined Science)

What is Science all about?

To build on prior knowledge from the transition & induction phase: Students will revisit the 10 key topics of forces, electromagnetism, energy, waves, matter, reactions, earth, organisms in different context. In addition, students will apply their understanding of the scientific method to practical investigations.

Science Structure:

Set 1 students will study Triple Science, with the aim gaining GCSEs in Biology, Chemistry and Physics. Sets 2 and higher will study Combined Science (formally known as Double Award) will be entered for the 'Combined Science' qualification rather than the Triple Science examinations and will gain the equivalent of two GCSEs.

Course Structure:

Science will be taught with 6 hours per fortnight by subject specialists (where possible)

How will I be assessed?

All formal exams will take place at the end of Year 11. Each subject in Combined science will have two papers, each are 1 hour 15 min in length. Practical skills will be developed throughout the course by completing a wide range of required practical's these will then be assessed in the external examinations. The GCSE grading system will be used where students will be awarded a number grade from 9 to 1 for each of the three GCSE Sciences or combined score for Combined Science e.g. 8-8, 8-7, 7-7 etc.

For students selected to do Triple science, the exam structure is the same with the same topics, but will be 1 hr 45 min long each.

Outline of exam structure for Science:

- Biology paper 1: Cell Biology; Organisation; Infection and response; and Bioenergetics.
- Biology paper 2: Homeostasis and response; Inheritance, variation and evolution and Ecology.
- Chemistry paper 1: Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry; Chemical changes and Energy changes.
- Chemistry paper 2: The rate and extent of chemical change; Organic chemistry; Chemical analysis; Chemistry of the atmosphere and using resources
- Physics paper 1: Energy; Electricity; Particle model of matter; Atomic structure
- Physics paper 2: Forces; Waves; Magnetism and electromagnetism
- *Extra lessons / topics will be delivered to cover the triple science content in each subject.*

What could I do next with GCSE Triple Science?

Career paths: Science is a highly valued subject that nurtures the development of transferable skills essential for the work place. Science provides a foundation for many science-related and unrelated careers such as: doctor, vet, physiotherapist, chemist, beautician, plumber, nurse, architect, surveyor, engineer, farmer, sports trainer, lawyer, journalist, computer games developer, marine biologist and electrician, to name but a few. A strong knowledge of at least one of the sciences will be highly desirable if not essential.

What can I do after I have completed this course?

Science can open doors to all sorts of careers; this course can be used as a stepping stone to a Level 3 course such as A Level Biology, Chemistry or Physics or BTEC Applied Science. It brings a lot of scientific theory and thinking together and a good GCSE grade in Combined Science demonstrates that a student can apply themselves

in problem solving, practical skills and scientific writing; these qualities are highly prized by universities and in today's competitive job market

Further information:

GCSE Combined Science Trilogy:

<https://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464/specification-at-a-glance>

GCSE Biology:

<https://www.aqa.org.uk/subjects/science/gcse/biology-8461/specification-at-a-glance>

GCSE Chemistry:

<https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462/specification-at-a-glance>

GCSE Physics:

<https://www.aqa.org.uk/subjects/science/gcse/physics-8463/specification-at-a-glance>