

Subject: GCSE Triple Science (Biology, Chemistry, Physics)

Exam Board: AQA Biology 8461, Chemistry 8462, Physics 8463

Exam: 100%

Course Summary: Triple Science consists of six externally examined papers and results in 3 separate GCSE grades which are examined at the end of Y11. Students who wish to study triple science must have followed the programmes of study for sets 1 or 2 at KS3. Further discussion will be through Mrs Thompson – Head of Faculty for Science.

Qualification Content:

Subject	Additional Triple Content	
BIOLOGY 8461	Cell Structure: Culturing microorganisms Monoclonal antibodies Plant disease The brain, the eye, control of body temperature Water and nitrogen balance	Plant hormones Reproduction DNA structure and cloning The theory of evolution Decomposition Trophic levels in the ecosystem Food production
CHEMISTRY 8462	Properties of transition metals Nanoparticles Yield and atom economy of chemical reactions Chemical cells and fuel cells Reactions of alkenes and alcohols	Synthetic and naturally occurring polymers Identification of ion by chemical and spectroscopic means Using materials The Haber Process and the use of NPK fertiliser
PHYSICS 8463	Static electricity Pressure in gases Hazards and uses of radioactive emissions Nuclear fission and fusion Moments, Levers and Gears Pressure and pressure differences in fluids	Changes in momentum Reflection of waves, sound waves and waves for detection and exploration Induced, potential transformers and the National Grid Solar System and Red Shift

Course Aims & Objectives:

The Separate Sciences should build on the Combined Science course to enable students to further:

- Develop scientific knowledge and conceptual understanding.
- Develop understanding of the nature, processes and methods of Science, through different types of enquiry that help them to answer scientific questions about the world around them, and learn to apply observational, practical, modelling, enquiry and problem solving skills in the laboratory, in the field and in other learning environments.
- Develop their ability to evaluate claims based on Science through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively.

Possible Careers + Future Study: From Electrician to Doctor/Vet via A Levels and onto University.