



Triple Science: GCSE Biology, Chemistry & Physics

Triple Science is a two year GCSE course. Students studying Triple Science will take three GCSEs in Biology, Chemistry and Physics. It is designed for very able students with a high level of interest in science who are considering studying a science related discipline at university. Students taking Triple Science have 10 lessons of science every 2 weeks in common with the Combined Science students, and also have an extra 5 lessons every 2 weeks devoted to the Triple Science topics. Students in sets 1 and 2 who have consistently achieve a grade 6 or above and who are committed to studying science will be offered the chance to choose between Triple Science and Combined Science Trilogy.

Students study all of the topics in Combined Science Trilogy plus the following:

Biology • Extra Topics studied: Culturing Microorganisms, Plant Disease, Monoclonal Antibodies, Human Nervous System, The Brain, The Eye, Maintaining Body Temperature, Hormones and the Control of Water and Nitrogen Balance, Plant Hormones, DNA structure, Cloning, Theory of Evolution, Trophic Levels in an Ecosystem, Decomposition.

Chemistry • Extra Topics studied: Transition Metals, Nanoparticles, Bulk and Surface Properties of Matter, Yield and Atom Economy, Gas Concentration Calculations, Titrations and Concentration Calculations, Chemical Cells and Fuel Cells, Alkenes, Alcohols, Spectroscopy, Haber Process

Physics • Extra Topics Studied: Nuclear Fission and Nuclear Fusion, Background Radiation, Half Life of Radioactive Isotopes, Pressure in Fluids, Moments, Static Electricity, Lenses, Space.

The GCSEs in Biology, Chemistry and Physics have been designed by the exam board, AQA, to be the ideal preparation for studying A Level Sciences. Although the new A Level specifications have been written with the assumption that students progressing on to A Level Biology, Chemistry and Physics will have studied GCSE Combined Science: Trilogy, students studying Triple Science will have the opportunity to study more science topics at GCSE in more depth.

Popular science based degrees include: Chemistry, Biology, Medicine, Veterinary Science, Pharmacology, Physics, Chemical Engineering, Medicine, Biochemistry, Mechanical Engineering, Pharmacy, Environmental Sciences, Chemical Physics and many others.

Science related career options for students who enjoy science and are successful at GCSE, including: analytical chemist, chemical engineer, clinical biochemist, pharmacologist, research scientist, toxicologist, chartered accountant, environmental scientist, university lecturer, lawyer, science writer, secondary school teacher, patent attorney, dentist, doctor, vet and many more.

Science is a practical subject and throughout the course students will have a chance to carry out many different practical activities. There is no longer any coursework at GCSE. Instead, students carry out a number of experiments during the course and these are assessed during the exams.

There are six exam papers at the end of Year 11: two Biology, two Chemistry and two Physics, with all the papers 1 hour 45 minutes in length.

Tiers: We would expect all Triple Science students to take Higher Tier, although there is also a Foundation Tier available. There are a range of question types: multiple choice, structured, closed, short answer and open response. Students complete a number of Required Practicals during their course and some questions in the exam papers will assess their practical skills.

GCSE Combined Science: Trilogy is worth two GCSEs