

SEPARATE SCIENCES

QUALIFICATION	GCSE
EXAMINING BOARD	Edexcel
CONTACT TEACHER	Mr Dobbyn
LESSONS PER FORTNIGHT	15

What you will learn?		
GCSE Biology Topics	GCSE Chemistry Topics	GCSE Physics Topics
<p>Key concepts:</p> <ul style="list-style-type: none"> Cells and control Genetics Natural selection and genetic modification Health, disease and the development of medicines Plant structures and their functions Animal coordination, control and homeostasis Exchange and transport in animals Ecosystems and material cycles 	<p>Key concepts</p> <ul style="list-style-type: none"> Atomic structure The periodic table Ionic and covalent bonding Types of substance, calculations involving masses States of matter and mixtures Chemical changes Extracting metals and equilibria Transition metals, alloys and corrosion Quantitative analysis Dynamic equilibria Groups in the periodic table Rates of reaction and energy changes Heat energy changes in chemical reactions Fuels and Earth science Earth and atmospheric science Qualitative analysis Hydrocarbons Polymers Alcohols and carboxylic acids Nanoparticles 	<p>Key concepts:</p> <ul style="list-style-type: none"> Forces Motion and forces Conservation of energy Waves Light and the electromagnetic spectrum Radioactivity Astronomy Energy– forces doing work Forces and their effects Electricity and circuits Static electricity Magnetism and the motor effect Electromagnetic induction Particle model Forces and matter

What pupils say

Positives:
“You learn a variety of detailed information that you wouldn't find in combined science.”

Be aware of:
“Learning the correct formulas for each subject and not mixing them up.”

Qualities needed to do well:
“High amount of concentration and focus.”

Course Overview
<ul style="list-style-type: none"> Students who opt to study Separate Science GCSEs work towards separate GCSEs in Biology, Chemistry and Physics. Students are taught in a distinct Separate Science set by three different subject specialist teachers, one teaching each area. Due to the demands of the course only students who have a ‘secure’ target of at least grade 5, performed strongly in the end of Key Stage 3 test and have shown the required application to achieve their target during Years 7 to 9 can be considered. Triple Science places emphasis on explaining, theorising and modelling Science and provides an excellent platform from which students can progress onto A level courses in Biology, Chemistry and Physics.

Assessment			
Overview (The structure below is the same for each of the 3 science subjects)			
Paper 1 1 hour 45 minutes (100 marks)	AO1: Demonstrating knowledge and understanding of scientific ideas, techniques and procedures.	40% of paper	50% of final grade
	AO2: Apply knowledge and understanding of scientific ideas, techniques and principles.	40% of paper	
	AO3: Analyse information and ideas to interpret and evaluate, make judgements and draw conclusions and develop and improve experimental procedures.	20% of paper	
Paper 2 1 hour 45 minutes (100 marks)	AO1: Demonstrating knowledge and understanding of scientific ideas, techniques and procedures.	40% of paper	50% of final grade
	AO2: Apply knowledge and understanding of scientific ideas, techniques and principles.	40% of paper	
	AO3: Analyse information and ideas to interpret and evaluate, make judgements and draw conclusions and develop and improve experimental procedures.	20% of paper	
<ul style="list-style-type: none"> Each separate science GCSE is assessed by two 100 mark papers, each one assessing half of the content in each GCSE. Each exam counts towards 50% of the final grade. Each paper will consist of multiple-choice, short answer questions, calculations and extended open-response questions. Assessment within the paper requires students to work across different parts of the qualification to show their accumulated knowledge and understanding of each topic. 			

Careers
<ul style="list-style-type: none"> A-Levels in Biology, Chemistry and Physics Any number of science-related degrees such as veterinary science, marine biology, nuclear physics, engineering, astrochemistry and chemical engineering.