

# Course Title: GCSE Triple Science

Awarding Body: Edexcel

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## Why study Triple Science?

A number of students will be invited to study Biology, Chemistry and Physics, which will lead to three individual qualifications. The invitation will be based on prior attainment, attitude and behaviour in lessons. Science helps pupils understand the world around them and the role that science has in society. It helps develop planning, teamwork, problem solving and practical skills, as well as generating curiosity about their surroundings. This develops pupils' confidence to question the workings of the biological, chemical, physical and technological world and become better informed citizens. Triple Science offers the chance to look deeper into the individual sciences. There are several links between Science and other subjects, these includes the use of numeracy and literacy skills.

## Course Outline

There are two tiers of entry: Foundation and Higher. The grade awarded is dependent on the tier of exam completed; these are listed below.

<b>Foundation</b>	1	2	3	4	5				
<b>Higher</b>				4	5	6	7	8	9

### An overview of each unit:

<b>Biology 1</b> Key biological concepts Cells and control Genetics Natural selection and genetic modification Health, disease and development of medicines	<b>Biology 2</b> Key biological concepts Plants structures and their functions Animal coordination, control and homeostasis Exchange and transport in animals Ecosystems and material cycles
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### An overview of each unit:

<b>Chemistry 1</b> Key concepts in Chemistry States of matter Methods of separating and purifying substances Acids Obtaining and using metals Electrolytic processes Reversible reactions and equilibria Transition metals, alloys and corrosion Quantitative analysis Dynamic equilibria calculations involving volumes of gases Chemical cells and fuel cells	<b>Chemistry 2</b> Key concepts in Chemistry Group 1, 7 and 0 Rates of reaction Fuels Heat energy changes in chemical reactions Earth and atmospheric science Qualitative analysis: tests for ions Hydrocarbons Polymers Alcohols and carboxylic acids Bulk and surface properties of matter including nanoparticles
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### An overview of each unit:

<b>Physics 1</b>	<b>Physics 2</b>
Motion and forces	Motion and forces
Waves	Energy-forces doing work
Light and electromagnetic spectrum	Forces and their effects
Particle model	Electricity and circuits
Radioactivity	Static electricity
Uses of radioactivity	Magnetism and the motor effect
Astronomy	Conservation of energy
	Particle model
	Forces and matter
	Electromagnetic induction

### Timetable

Each Science is taught by a specialist teacher for 5 hours over a two-week period.

More information and the full syllabus can be found at:

<https://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html>

### Assessment Format

#### Edexcel (1-9) Triple Science 1BI0/1CH0/1PH0

Students will be examined externally through 2 terminal examinations in May and June of Year 11. Each exam is 1 hour and 45 minutes.

The terminal examinations will contain content linked to 8 core practical tasks which students will be taught in class. Students will keep a separate record of this work and will be expected to apply their knowledge of these in an exam situation.

All examinations will also include questions of a mathematical nature.

### What skills will I need to be successful in this subject?

The content covered in the course is vast, but it is broken down into smaller topics and provided you are methodical in your approach you will be successful. You will need to have an inquisitive mind and, if relevant, use your previous experiences to help you process the new information given during the course. Organisation will help you keep clear and concise notes so that revision is easier. Being willing to make mistakes and learn from them is important.

### Possible Careers and Future Education

Science education develops a wide range of skills and opportunities that will prepare students for almost every career path.

Triple science is key to those students who are planning to follow a science-based career path or wish to study A-level sciences.

Careers may include Medicine, Dentistry, Veterinary Science, Marine Biologist, Astronomy, Forensic Sciences.

