**GCSE Combined Science (2 GCSEs)**

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**Why study GSCE Combined Science?**

GCSE Combined Science gives students an overview of a range of scientific topics which are relevant to everyday life and further scientific studies. These will include how their body works and how medicines are developed, in physics how electricity is generated and the uses and effects of the parts of the electromagnetic spectrum such as infrared and microwaves. Finally in chemistry the Earth’s atmosphere, pollution and how safe drinking water is produced. GCSE Science allows students to develop analytical and evaluative skills, as well as supporting the development of numeracy and literacy skills. Lessons are taught firstly with theory which is backed up by stimulating practical work and activities.

**What does the course involve?**

The new combined sciences GCSE provides students with a broad and balanced coverage of science (Biology, Chemistry and Physics), in terms of subject knowledge and understanding of scientific principles. It provides students with the skills required in an increasingly scientific world and an understanding of the ethical role of science in society.

The units taught in combined science are the same as those taught through the separate science option but are **reduced** in content.

**How will I be assessed?**

This GCSE is studied in Years 10 and 11 and examined at the end of Year 11. Assessment will consist of four equally weighted papers (each one 25% of overall grade). The papers will be a mix of multiple choice, structured closed questions as well as open ended extended responses. Each paper will last 1 hour 45 minutes.

**Life and Environmental Sciences** Papers 1 and 2

**Physics:**

States of matter

Waves

Radioactivity

Atomic structure

**Biology:**

Cell biology

Organisation

Infection and response

Bioenergetics – photosynthesis and respiration

Homeostasis and response

Inheritance, variation, and evolution

Ecology

**Chemistry:**

Earth’s atmosphere

Water

**Physical sciences** Papers 3 and 4

**Chemistry:**

The periodic table

Chemical equations

Chemical calculations

Energy changes in reactions

Chemical bonding

Acids and alkalis

Electrons and chemical reactions

Rates of reaction and equilibria

Carbon chemistry

Material resources

**Physics:**

Forces, Newton’s laws, and motion

Energy changes

Magnetism and electromagnetism

Circuits and mains electricity

Energy resources

In addition, students complete a set of required practicals that they will be assessed upon as part of their final examinations.

What are my progression routes?

In the sixth form, students who achieve a GCSE grade 7-7 or above will be able to study A-level Sciences; students who achieve a GCSE grade 5-5 or above will be able to study BTEC Human Biology.

Additional Information

Combined Science is suitable for all candidates; the course is broken down into manageable sections so that all students can access the learning.