



Overview

Students begin KS4 Science in Year 9 with a general science course, which includes studying biology, physics and chemistry. There are numerous practical activities over the KS4 science course, which develop scientific enquiry skills. Pupils will cover all aspects of a good science education:

- Evaluating evidence and the implications of science for society
- Explaining, theorising and modelling in science and procedural and technical knowledge of science practice

As part of our objective to enhance the understanding of the Science curriculum, we undertake school trips. Places that have been visited include the Science Museum, Natural History Museum, The London Zoo and the IMAX theatre. The Science department run after-school revision clubs for GCSE pupils. These clubs aim at preparing pupils for the external exams and give them more practise at answering past exam papers.

Year 9 pupils begin on the same science pathway. By Year 10, pupils will follow one of two learning pathways - Separate Science *or* Combined Science. Each pathway takes recognition of a pupil's ability as well as providing learning opportunities for them to achieve their full potential.

Pupils will study the following modules across 3 years:

	Combined Science	Separate Science
Physics	Energy; Electricity; Particle model of matter; Atomic structure; Forces; Waves; Magnetism and electromagnetism	Energy; Electricity; Particle model of matter; Atomic structure; Forces; Waves; Magnetism and electromagnetism; Space physics
Biology	Cell biology; Organisation; Infection and Response; Bioenergetics; Homeostasis and Response; Inheritance; Variation and Evolution; Ecology	Cell biology; Organisation; Infection and Response; Bioenergetics; Homeostasis and Response; Inheritance; Variation and Evolution; Ecology
Chemistry	Atomic structure and the periodic table; Bonding, structure and the properties of matter; Quantitative Chemistry; Chemical Changes; Energy Changes; The rate and extent of chemical change; Organic chemistry; Chemical analysis; Chemistry of the atmosphere; Using resources	Atomic structure and the periodic table; Bonding, structure and the properties of matter; Quantitative Chemistry; Chemical Changes; Energy Changes; The rate and extent of chemical change; Organic chemistry; Chemical analysis; Chemistry of the atmosphere; Using resources

Assessment

Separate Science

- This will result in 3 separate GCSE grades in Physics, Biology and Chemistry.
- Pupils will complete 2 Physics, 2 Biology and 2 Chemistry exams. Each written exam is 1 hour 45 minutes and worth 100 marks.

Combined Science

- This will result in 2 separate GCSE grades.
- Pupils will complete 2 Physics, 2 Biology and 2 Chemistry exams. Each written exam is 1 hour 15 minutes and worth 70 marks.

Progression Pathways & Careers

Understanding aspects of science vital to leading a well rounded lifestyle, it can help performance in a multitude of hobbies and activities, and is also beneficial to an extensive list of careers. A qualification in science is desirable for most career routes, especially within the fields of STEM (Science, Technology, Engineering and Mathematics), research, medicine, health, and provides an excellent skills base for working in fields such as Sport, Cookery, Computer Science, Electronics, and Construction.