SCIENCE

Subject Title:

a) GCSE in Core Science (Y10) followed by another Science subject (Additional Science) in Y11

Or:

b) GCSE's in Biology, Chemistry and Physics in Y10 and Y11 (Triple Science) with the opportunity to take the AS in Science in Society at the end of Y11

Exam Syllabus: either:

a). AQA Specification A 4461 (Science)

Or:

b). Separate Sciences:
AQA Biology 4411
AQA Chemistry 4421
AQA Physics 4451
AQA AS SIS Science in Society

Choices

Please note: Science A will be followed by another science GCSE in Year 11

Specification title:	**AQA GCSE Science A 4461**
Aims/approaches adopted:	• encourages students to develop a critical approach to scientific evidence • explores the implications of science for society • is suitable as a basis for further study of science • aims to develop the scientific literacy needed by every citizen.
Brief outline of the content of the teaching units: (to be taught in year 10)	there are 6 teaching units entitled o **Biology 1a** human biology, o **Biology 1b** evolution and environment o **Chemistry 1a** products from rocks o **Chemistry 1b** oils, Earth and atmosphere o **Physics 1a** energy and electricity o **Physics 1b** radiation and the universe
Brief outline of the scheme of assessment: **(all exams in Y10 at regular intervals during the year)**	• 6 examinations, each of 30 minutes and 12.5% of the GCSE marks, in Nov, March and June. (A total of 75% of the science GCSE marks.) 2 teaching units will be examined on each date.

	• An assessment based on class practical work which is worth 25% of the GCSE marks. This has 2 parts: a) a practical skills assessment (6marks) and b) an investigative skills assignment (ISA) (34 marks). This is set by the examination board, you will do the activity in science lessons and is marked by your science teachers. o minimum requirement is one ISA
Resources to support this course	• http://www.aqa.org.uk/qual/gcse/new_science.html

The next tables show the details of the 3 separate science courses taken during year 10 and year 11. You will notice that the aims and approaches adopted are identical to those for GCSE Single Science. The key differences are:

i) compared to Year 10 Science followed by Year11 Additional Science you will do an extra unit in each of Biology, Chemistry and Physics
ii) assessment is in Year 10 and Year 11. The year 11 questions are structured rather than multiple choice.

Specification title:	**AQA GCSE Biology 4411**
Aims/approaches adopted:	encourages students to explore explaining, theorising and modelling in science • also encourages students to develop a critical approach to scientific evidence • is suitable as a basis for further study of science
Brief outline of the content of the teaching units: **(taught over 2 years, year 10 and year 11, along with Chemistry and Physics)**	• there are 4 teaching units entitled o 'how science works' (this is included in the teaching and learning of science content.) **o Biology 1** Human biology, evolution and the environment **o Biology 2** Processes in living things **o Biology 3** Transport and exchange in living things, using micro-organisms
Brief outline of the scheme of assessment:	• 3 examinations. 1 is taken in Y10 and is multiple choice. The other 2 (structured questions) are taken in January and/or June of 2008. (year 11) • An assessment based on class practical work which is worth 25% of the GCSE marks. This has 2 parts: c) a practical skills assessment (6marks) and d) an investigative skills assignment (ISA) (34 marks). This is set by the examination board, you will do the activity in science lessons and is marked by your science teachers.

	o minimum requirement is one ISA
Progression to which level 3 courses?	• AS/A Level Biology • AS Science in Society

Specification title:	**AQA GCSE Chemistry 4421**
Aims/approaches adopted:	encourages students to explore explaining, theorising and modelling in science • also encourages students to develop a critical approach to scientific evidence • is suitable as a basis for further study of science
Brief outline of the content of the teaching units:	• there are 4 teaching units entitled o 'how science works' (this is included in the teaching and learning of science content.) **o Chemistry 1** Products from rocks, oils, the earth and its atmosphere **o Chemistry 2** Structures and rates of reactions **o Chemistry 3** The Periodic Table, solutions and identification
Brief outline of the scheme of assessment:	• 3 examinations, 1 is taken in Y10 and is multiple choice. The other 2 (structured questions) are taken in January and/or June of 2008. (year 11) The exams are worth 75% in total of the GCSE marks. • An assessment based on class practical work which is worth 25% of the GCSE marks. This has 2 parts: a) practical skills assessment (6marks) and b) an investigative skills assignment (ISA) (34 marks). This is set by the examination board, you will do the activity in science lessons and it is marked by your science teachers. o minimum requirement is one ISA
Progression to which level 3 courses?	• AS/A Level Chemistry • AS Science in Society
Further information	http://www.aqa.org.uk/qual/gcse/new_science.html

Specification title:	**AQA GCSE Physics 4451**
Aims/approaches adopted: •	encourages students to explore explaining, theorising and modelling in science • also encourages students to develop a critical approach to scientific evidence • is suitable as a basis for further study of science

Brief outline of the content of the teaching units:	• there are 4 teaching units entitled o 'how science works' (this is included in the teaching and learning of science content.) **o Physics 1** Energy and Electricity, Radiation and the Universe **o Physics 2** Movement, momentum and static electricity **o Physics 3** Circular motion, light, sound, electricity, stars
Brief outline of the scheme of assessment:	• 3 examinations, 1 is taken in Y10 and is multiple choice. The other 2 (structured questions) are taken in January and/or June of 2008. (year 11) The exams are worth 75% in total of the GCSE marks. • An assessment based on class practical work which is worth 25% of the GCSE marks. This has 2 parts: a) practical skills assessment (6marks) and b) an investigative skills assignment (ISA) (34 marks). This is set by the examination board, you will do the activity in science lessons and it is marked by your science teachers. o minimum requirement is one ISA
Progression to level 3 courses?	• AS/A Level Physics • AS Science in Society

AS Science in Society

This course aims to broaden the curriculum by giving you the opportunity to reflect on scientific issues in a wider context. Eg the impact on people or the environment of particular discoveries, lifestyles, technology.

The nature of the course encourages a wide range of skills such as debating and independent research, and you will learn to evaluate information in order to make informed decisions about issues related to science. The skills developed here will have a wide application in other subject areas.

The course is assessed by examination (60%) and by coursework (40%)

The examination is based on exploring key scientific issues and the coursework consists of 2 pieces of work:

- a study of a topical scientific issue (60% of the coursework)
- a critical account of scientific reading (40% of the coursework).

Questions you may have.

If I have taken a Science GCSE after one year will I still have to continue with science?
Yes.

Does everyone take the same examination paper in year 10.
No, there is a choice of Foundation or Higher tier when doing the multiple choice papers and you can take different tiers for different topics. It is possible to achieve a C grade on a Foundation tier paper.

I am not especially good at science but enjoy learning about science. Can I do the 3 separate sciences?
Yes you can. The extra science topics do not necessarily involve more difficult concepts although some of them do. What is important is that you enjoy science as you could have 3 science lessons in one day.

Will I have 3 science GCSE's if I do Triple Science?
Yes. You will have a GCSE in each of the science subjects.

Is the AS Science in Society worth doing?
You don't study the science concepts in depth, but rather look at the topical issues that involve science and debate them.