

SCIENCE - Double

Examination Board: AQA Syllabus A



Syllabus Content:

GCSE SCIENCE + GCSE ADDITIONAL SCIENCE

The subject is taught in six lessons per week: two Biology, two Chemistry and two Physics, taught, in each case, by specialist teachers. GCSE Science is studied in Year 10 and examined in the summer of Year 10. This course is designed to communicate the scientific ideas and issues that we encounter in today's society.

In Year 11, students study GCSE Additional Science. This course includes many of the basic scientific theories that underpin modern science. It is examined in the summer of Year 11.

Besides being an interesting course in its own right, it is a solid foundation for study of science subjects at A-level.

Examples of curriculum content:

GCSE SCIENCE – YEAR 10	GCSE ADDITIONAL SCIENCE – YEAR 11
Biology 1 <ul style="list-style-type: none">• How do human bodies respond to changes inside them and to their environment?• What can we do to keep our bodies healthy?	Biology 2 <ul style="list-style-type: none">• What are animals and plants built from?• Which human characteristics show a simple pattern of inheritance?
Chemistry 1 <ul style="list-style-type: none">• How do rocks provide building materials?• What are the changes in the Earth and its atmosphere?	Chemistry 2 <ul style="list-style-type: none">• How do sub-atomic particles help us to understand the structure of substances?• How can we control the rates of chemical reactions?
Physics 1 <ul style="list-style-type: none">• What factors affect the rate at which heat is transferred? How do we then decide how to better insulate our houses?• How should we generate the electricity we need?	Physics 2 <ul style="list-style-type: none">• How can we predict the movement of objects?• What is the life cycle of a star?

Assessment:

GCSE Science is examined by three forty-five minute written papers: Biology 1, Chemistry 1 and Physics 1, sat in June of Year 10. These comprise 75% of the total mark. Please note that new national rules mean that we will not be able to offer resits of these exams in Year 11. It is therefore vitally important that students work hard and do well at their first and only attempt at these papers.

The remaining 25% of the mark is awarded for practical work (Investigative Skills Assignment or ISA). During Year 10 students will have an opportunity to complete a Science ISA in each area (Biology, Chemistry and Physics) and the highest scoring ISA will be counted towards the final mark.

GCSE Additional Science is examined in the same way: students take Biology 2, Chemistry 2 and Physics 2 papers in June of Year 11. These comprise 75% of the total mark.

The remaining 25% is determined by the best example of an Additional Science ISA, completed in Year 11.

SCIENCE - triple

This qualification is designed for able students with a keen interest in science. It is timetabled in an extra option block, meaning that students have 50% more science lessons than Double Science students.

On successful completion of the course, students will have three science GCSEs, one each in Physics, Chemistry and Biology. Two-thirds of the course is the same as Double Science students ie students will take the same Physics 1&2, Chemistry 1&2 and Biology 1&2 papers. In addition, students take Physics 3, Chemistry 3 and Biology 3 papers.

These extra units comprise many challenging and interesting topics that will stretch students. The triple science course is therefore an excellent preparation for study of Sciences at Advanced level.

We will run two sets. The course places a high demand on students and we therefore recommend it only to students currently working at a National Curriculum level 7 or, possibly, a high level 6. If you need advice, then please discuss suitability for the course with your Science teacher.

Examples of extra curriculum content (in addition to that listed under Double Science):

Biology 3
<ul style="list-style-type: none">• Human physiology; eg the human heart and blood chemistry
Chemistry 3
<ul style="list-style-type: none">• Analysing substances using flame tests and coloured precipitates
Physics 3
<ul style="list-style-type: none">• Electric motors and electromagnetic induction

Assessment

Each subject is split into three sections, for example Biology 1, Biology 2 and Biology 3. All three sections in all subjects will be assessed individually with forty-five minute papers. The first unit, in each case, will be examined in June of Year 10; the second and third units will be examined in Year 11.

In addition to the above papers, students will need to complete an ISA (Investigative Skills Assessment) for each subject area.

For further information please contact Mr G Sargen, Head of Science, or Mr K Fernandez, Key Stage 4 Co-ordinator Science.

