

Separate Sciences – GCSE Biology, GCSE Chemistry & GCSE Physics (AQA)

Mr Bradbury

Course Outline

The course is aimed at students who achieve well in Science and who wish to develop their understanding of Science to a higher level. It is designed to stretch and challenge our most able students by providing them with a greater depth and range of Science study. This course leads to three separate GCSE qualifications in Biology, Chemistry and Physics. The qualification is linear meaning that the students will sit all examinations at the end of the course. The content for each subject area is listed below.

Biology

1. Cell biology
2. Organisation
3. Infection and response
4. Bioenergetics
5. Homeostasis and response
6. Inheritance, variation and evolution
7. Ecology

Chemistry

1. Atomic structure and the periodic table
2. Bonding, structure and the properties of matter
3. Quantitative chemistry
4. Chemical changes
5. Energy changes
6. The rate and extent of chemical change
7. Organic chemistry
8. Chemistry in the atmosphere
9. Energy changes
10. Using resources

Physics

1. Energy
2. Electricity
3. Particle model of matter
4. Atomic Structure
5. Forces
6. Waves
7. Magnetism and electromagnetism
8. Space physics

Assessment

Two examination papers are taken for each subject area. Different topics are assessed on each paper. Each examination paper lasts for 1 hour 45 minutes. There are two tiers – Foundation and Higher. Each paper has 100 marks and is worth 50% of the final grade.

The type of questions included on each examination paper are multiple choice, structured, closed, short answer and open response.

Progression/further study

Two GCSEs in Science subjects are the minimum requirement from post 16 Colleges to go on to study A-Levels in Science which can then lead to Higher Education. This is also true of Level 3 vocational qualifications in Science.

Many other options at post 16 require two good passes in GCSE Sciences. There are a huge number of possible careers that require good Science GCSEs. Further detail can be found at:

<http://www.sciencecareerpathways.com/a-z-of-roles/>