



Triple Science is one option

Biology

Examination Board: AQA
Examination Code: 8461

Outline of the Course

7 core topics will be studied which are assessed in two examination papers at the end of Year 11. Practical work will also be at the heart of these topics and students' practical skills will be assessed in the two examination papers.

Students will develop a range of transferable skills by undertaking practical activities to help prepare them for the examination questions based on the 10 Required practical investigations. They will learn to make observations, analyse data appropriately and explain conclusions in terms of scientific concepts.

What will you learn?

In addition to those specification areas outlined in the Combined Science course, students will also study:

- Culturing microorganisms
- Monoclonal antibodies
- Plant diseases
- The brain and eye
- Plant hormones
- DNA structure
- Cloning
- Food security

How will I be assessed?

There are two 1 hour and 45 minute examination papers that students will sit at the end of Year 11. There will be a mixture of multiple choice, structured, closed short answer and open responses that will require extended writing. Practical understanding will also be assessed in these papers.

Mark Breakdown

Each examination paper accounts for 50% of the total Biology GCSE marks.

Website links

<https://www.aqa.org.uk/subjects/science/gcse/biology-8461>

Key Dates

Examinations: May Year 11

Further Information

Dr. J. Howe - Curriculum Leader for Biology
Dr. L. Tatton - Subject Teacher
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What can I do after I have completed the course?

The GCSE Biology course provides a strong basis for further Biological or Scientific studies such as A Level Biology.

Students who continue to the A Level Biology course progress to university courses in a range of fields including: Ecological studies, Physiotherapy, Audiology, Dentistry, Pharmacology, Ophthalmology, Neurobiology, Biochemistry, Bioengineering, Medicine and Genetics. Students develop many transferable skills such as data analysis, evaluation skills, report writing, quality of written communication and practical skills which will assist them in a range of career pathways.

Chemistry

Examination Board: AQA
Examination Code: 8462

Outline of the Course

10 core topics will be studied which are assessed in two examination papers at the end of Year 11. Practical work will also be at the heart of these topics and students' practical skills will be assessed in the two examination papers.

Students will develop a range of transferable skills by undertaking practical activities to help prepare them for the examination questions based on the 8 Required practical investigations. They will learn to make observations, analyse data appropriately and explain conclusions in terms of scientific concepts.

What will you learn?

In addition to those specification areas outlined in the Combined Science course, students will also study:

- Transition metal properties
- Nanoscience
- Percentage yield, atom economy and concentrations
- Cells, batteries and fuel cells
- Further organic chemistry (including biochemistry)
- Further analytical chemistry
- Material chemistry and the Haber process

How will I be assessed?

There are two 1 hour and 45 minute examination papers that students will sit at the end of Year 11. There will be a mixture of multiple choice, structured, closed short answer and open responses that will require extended writing. Practical understanding will also be assessed in these papers.

Mark Breakdown

Each paper is worth 50% of the total Chemistry GCSE marks.

Website links

<https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462>

Key Dates

Exam: May/June Year 11

Further Information

Mrs. L. Wallis – Director of Science
Miss S. Hayton - Curriculum Leader for Chemistry
Mr. S. Marshall - Subject Teacher and Director of Sixth Form
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What can I do after I have completed the course?

The skills developed by studying Chemistry are highly valued by employers. Chemistry graduates obtain jobs in a wide range of fields such as art restoration, banking and politics. **Chemistry A Level is a requirement for studying Medicine, Dentistry and most Veterinary Science courses.**

Physics

Examination Board: AQA
Examination Code: 8463

Outline of the Course

8 core topics will be studied which are assessed in two examination papers at the end of Year 11. Practical work will also be at the heart of these topics and students' practical skills will be assessed in the two examination papers.

Students will develop a range of transferable skills by undertaking practical activities to help prepare them for the examination questions based on the 10 Required practical investigations. They will learn to make observations, analyse data appropriately and explain conclusions in terms of scientific concepts.

What will you learn?

In addition to those specification areas outlined in the Combined Science course, students will also study:

- Half lives of radioactive isotopes, nuclear fission and fusion
- Sound and light waves
- Uses of the generator effect, microphones and transformers
- **Space physics (Physics only unit):** Solar System, life cycle of stars, orbital motion, red-shift and The Big Bang.

How will I be assessed?

There are two 1 hour and 45 minute examination papers that students will sit at the end of Year 11. There will be a mixture of multiple choice, structured, closed short answer and open responses that will require extended writing. Practical understanding will also be assessed in these papers.

Mark Breakdown

Each examination paper accounts for 50% of the total Physics GCSE marks.

Website links

<https://www.aqa.org.uk/subjects/science/gcse/physics-8463>

Key Dates

Exam: May/June Year 11

Further Information

Mr. S. Chillingworth - Curriculum Leader for Physics
Mr. C. Drayton –Subject Teacher
Mr. R. Turley – Subject Teacher
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What can I do after I have completed the course?

Physics is accepted for entry to Sixth Form and at A Level to higher education. It provides students with problem-solving, analytical, mathematical and IT skills. Students who study Physics gain skills which are favourable to any employer within science or not. Students have gone on to study Physics, Engineering, Maths, and Architecture at university. In addition to this, students have also gone on to study other subjects such as Philosophy and Economics.