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DETERMINATION

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# Year 9 Curriculum Information Evening

**Subject: Triple Science**  
**Subject Leader: Mr Moseley**

# What you will learn

The Triple Science GCSE course builds on the topics and skills explored in KS3 and should enable students to:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics.
- Develop understanding of the nature, processes and methods of science, including the different types of scientific enquiry that enable us to answer questions about the world around us.
- Develop and learn to apply observational, practical, and problem solving skills in the school laboratory setting.
- Develop their ability to evaluate claims based on science through critical analysis and draw their own conclusions based upon the evidence presented.

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# What you will learn

The Triple Science GCSE course includes all of the content covered in GCSE Combined Science but with additional content and practical activities.

Some of the highlights can be found below:

## **Biology:**

- The different parts of the brain & spinal cord injuries
- The blood groups & sex-linked genetic disorders
- New developments in medicine such as 'monoclonal antibodies', used to detect cancer
- The anatomy of the kidney
- Importance of conservation of endangered species

## **Chemistry:**

- Why your cutlery doesn't rust but your bike does.
- How alcohol can be made in a science laboratory
- What a mole is (not the animal, or skin condition)
- How rechargeable and non-rechargeable batteries work

## **Physics:**

- How the ear works and detects different sounds (& how hearing loss occurs)
- How ultra & infrasound work and can be used
- How radioactivity is used in medicine & how nuclear energy is produced
- The solar system, life cycle of stars & the origin of the universe

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# How you will be assessed

	<b>GCSE Biology</b> <b>GCSE Chemistry</b> <b>GCSE Physics</b>
<b>Assessments</b>	<ul style="list-style-type: none"><li>🔗 GCSE Biology: 2 papers</li><li>🔗 GCSE Chemistry: 2 papers</li><li>🔗 GCSE Physics: 2 papers</li></ul> Each paper: 📊 100 marks 🕒 1hr 45 mins
<b>Question types</b>	multiple-choice questions, scaffolded and short answer questions, calculations, and extended open response questions
<b>How is content split across the papers?</b>	<ul style="list-style-type: none"><li>🔗 Papers are split according to topic, with half the content for each discipline in one paper (e.g. Biology 1) and half the content in the second paper (e.g. Biology 2).</li><li>🔗 The first topic in each specification lists key ideas that may be assessed in both paper 1 and paper 2. These are either fundamental ideas of the science, e.g. cells in Biology or atomic structure and bonding in Chemistry, or skills, e.g. handling units in Physics.</li></ul>

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# Why study Science?

GCSE study in the sciences provides the foundation for understanding the material world.

Scientific understanding is changing our lives and is vital to the world's future prosperity. All students should learn essential aspects of the knowledge, methods, processes and uses of science.

They should gain appreciation of how the complex and diverse phenomena of the natural world can be described in terms of a small number of key ideas that relate to the sciences and that are both inter-linked and of universal application.

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# Post 16 Opportunities

Success at GCSE Science opens up many STEM related pathways post 16.

Science is an excellent base for a university degree in healthcare, such as medicine, veterinary or dentistry, as well as the biological sciences, such as biochemistry, molecular biology or forensic science.

Science can also lead to advanced apprenticeships or degrees based in industry, such as engineering, aerospace, nuclear power generation and electrical power distribution.

The transferable skills you will learn, such as problem solving, are also useful for many other areas, such as law.

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# Questions

