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## Why do you have to study Science?

Science plays a pivotal role in many careers and it is vital that you have an understanding of the basic principles within all Sciences.

Biology is the study of the natural world and all the living things in it, from the largest mammals down to our very own microscopic DNA, trying to understand how animals and organisms work; how we evolved and the things that can make us sick or improve our health. Biologists use this knowledge to do things like trying to stop the spread of disease, improve public health, animal care and conservation and to work out the true impacts of things like pollution.

Physicists look for all the hidden laws that explain why all matter and energy in the known universe exists, where it comes from and how it behaves the way it does, e.g. how forces of nature, like gravity, work or how aircraft stay up in the air. Physicists use the laws they uncover to develop new materials, machinery, and technology to improve our lives and help us explore the universe further, from computers to telescopes and spacecraft.

Chemists conduct experiments to study how elements work in different conditions, test how they mix, and work out what they are made up of right down to the tiniest particle. The results can be ground-breaking, colourful, explosive, or almost impossible to see. Chemists use their experiments and knowledge to develop medicines, foods, fabrics and other materials, from neon lights to shatterproof glass. They also use it to understand the world around us, from why leaves change colour to discovering invisible pollutants in the air. Chemistry is known as the 'central Science' because it helps to connect Physical Sciences, like Physics, with Applied Sciences, like Biology and Engineering. All KS4 Science candidates are taught by subject specialists.

**Combined Science** is equivalent to 2 GCSEs and candidates study a mix of all 3 Sciences for 10 periods/fortnight.

## Examination Information

**Exam Board:** AQA

**Exam:** 100% Exam

**Exam outline:**

**Combined Science is 2 GCSEs**

6 exams, 2 for each Science. Each examination is worth 50% of each Science.

Examinations total 100%. The qualification is linear, so students will sit all exams at the end of Y11. These exams are 75 minutes long.

Year 9 have started covering content for GCSE Sciences already. Students should consult with their teacher before choosing their preferred science course.

For further information on the Combined Science and Triple Science courses please contact the Head of Science.

## Where can it take me?

**Next Steps:** A Level Sciences and other Level 3 courses including Forensic Science and apprentice opportunities

**Future career opportunities that this subject may lead to:** Medicine, Dentistry, Engineering, Pharmaceuticals, Forensic science, Veterinarian and similar courses, Maths, Psychology, Midwifery, Paramedic services, Personal training, Catering. As a core subject, most career paths have a Science link.

## What Key Skills will I gain by taking Science

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| <input checked="" type="checkbox"/> Analysing                   | <input checked="" type="checkbox"/> Independent Learning |
| <input type="checkbox"/> Communication - Verbal                 | <input type="checkbox"/> Independent Thinking            |
| <input type="checkbox"/> Communication - Written                | <input type="checkbox"/> Listening Skills                |
| <input type="checkbox"/> Creative Thinking                      | <input type="checkbox"/> Presentation Skills             |
| <input type="checkbox"/> Debating                               | <input checked="" type="checkbox"/> Problem Solving      |
| <input type="checkbox"/> Decision Making                        | <input type="checkbox"/> Reading                         |
| <input checked="" type="checkbox"/> Evaluating                  | <input checked="" type="checkbox"/> Research             |
| <input checked="" type="checkbox"/> Hands-On / Technical Skills | <input checked="" type="checkbox"/> Team Work            |