

# Science

**Qualification:** GCSE Science

**Exam Board:** OCR

## Introduction

Students in Year 10 will be starting on new, unique, and exciting courses, all of which derive from **Science for the 21<sup>st</sup> Century**. This represents a milestone in the way in which science will be taught in the future. They are the result of joint venture by the Qualifications and Curriculum Authority (QCA), the University of York, the Nuffield Foundation, and OCR Examinations. The course is modular, running over two years with regular external assessment and internally assessed coursework.

## Course content

Key to the introduction of 21<sup>st</sup> Science is the need to address the interests and needs of different students as they grow up in this technological world and to relate science to local, national and international issues. Some students may go further to study separate science subjects and some students will need to relate science and technology in their places of work. All students will be 'consumers' of science, and they will need to be able to make sense of the science and technology that is part of the modern world and which is delivered by the media and global communications. Social, environmental, and cultural issues will all be interwoven into the courses and the promotion of citizenship will also have a strong focus.

In 21<sup>st</sup> Century Science there are different courses to suit the needs of different individuals.

1. **Single Award: Core Science**
2. **Double Award: Core Science + Additional Science (Applied)**
3. **Double Award: Core Science + Additional Science (General)**
4. **Separate Sciences**

### **Single Award: core science (1 GCSE)**

The course teaches many of the major theories of science, presented in a way that will encourage young people to appreciate their significance. Students explore the key science explanations that help us to make sense of our lives. The course also explores these aspects of science so as to prepare young people to deal with issues such as childhood vaccinations, air quality, and mobile phone safety as they arise. Future scientists will also benefit from this study of how science works. Central to the course is an understanding of the major Science Explanations and of the key Ideas about Science. These are what we want students to take with them from the course and carry with them into their adult lives, whether or not they use science in their work.

**Double award: core science + additional science (applied) (2 GCSEs)** is for students who would benefit from studying science in work related contexts. It applies Core Science to different applications in different work settings. There is a strong focus on applications in everyday life, at home and in

different occupations. It has a strong focus on skills and processes needed to take accurate and meaningful measurements, analyse information, and to evaluate information from different courses.

This course will enable students to progress to post-16 qualifications in areas of applied science and related subjects.

**Double award: core science + additional science (general) (2 GCSEs)** is appropriate for those students who would normally consider further studies in one or more of the sciences. It builds upon the knowledge and understanding of *Core Science*. It prepares students for progression to study AS and A-levels in the sciences. It gives emphasis and space to fundamental ideas in the sciences, and provides a stimulating bridge to advanced study.

**Separate sciences (3 GCSEs)** builds on the *GCSE Additional science* course. In each of Biology, Chemistry, and Physics, students complete six modules, three from *GCSE Science* and three from *GCSE Additional science* course. Students then study a Further Science module for each of Biology, Chemistry and Physics to complete their three full GCSE courses.

### **Assessment**

The assessment of all options for GCSE Science will occur both in January and summer. Coursework and internally assessed practical skills will have separate deadlines set throughout the year.

### **Why study Science?**

#### **Opportunities for further study and career pathways:**

GCSE science is essential for studying a Science at A Level. The transferable skills developed in science are recognised both by employers and if continuing on to further education. The analytical skills provide a good foundation for continued study in A Level Maths and Psychology.

Students develop key skills needed for employment with possible careers in Engineering, Medicine (and other health-related jobs), Banking and Pharmacy, to name just a few.

**For further information contact:** Barry Hurley or Chris Dixon