

# Science - Triple Science Award

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## *Why this subject?*

If you wish to take any combination of Sciences at A level this could be the course for you. It is an extremely demanding course and suitable only for those pupils who have shown significant ability in Science coupled with a willingness to work hard and at pace. For this reason, pupils' attitude to work is a major factor in the selection process which will take place in May. No additional curriculum time is given above that normally allocated to the other Science courses.

## *What you will do*

GCSE Biology, Chemistry and Physics provide opportunities to develop understanding of scientific explanations, how science works, ethical issues in science and the study of elements of applied science with particular links to the work of professional scientists.

## Teaching Modules

<b>Biology</b>	<b>Chemistry</b>	<b>Physics</b>
You and Your Genes	Air Quality	The Earth in the Universe
Keeping Healthy	Material Choices	Radiation and Life
Life on Earth	Food Matters	Radioactive Materials
Homeostasis	Chemical Patterns	Explaining Motion
Growth and Development	Chemicals of the Natural Environment	Electric Circuits
Brain and Mind	Chemical Synthesis	Wave Model of Radiation
Biology across the environment	Chemistry for a sustainable world	Observing the universe

This leads to three separate GCSEs in Biology, Chemistry and Physics. Pupils will be taught by three specialist subject teachers over the two years.

## *How you will be assessed*

Two unit exams each testing three units (1 – 3, 4 – 6), each 40 minutes long, each worth 16.7%.

- An Ideas in Context examination including material from extension module 7, 60 minutes long, worth 33.3%.
- Coursework unit **either** Practical Data Analysis and Cast Study **or** Practical Investigation, worth 33%.

The Examination Board is OCR.

Further information from:

[www.ocr.org.uk](http://www.ocr.org.uk)

[www.gcse-science.com](http://www.gcse-science.com)

[www.21stcenturyscience.org](http://www.21stcenturyscience.org)

# Twenty First Century Science

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## *Why this subject?*

The aim of this course is to make Science more relevant to the 21<sup>st</sup> Century. You will learn about and discuss topics reflecting local, national and international issues whilst ensuring the development of your "scientific literacy" so that you can judge the evidence yourself and make informed decisions about contemporary issues.

## *What you will do*

Think of the following:

- human cloning – myth or reality?
- what's the chance of an asteroid hitting the earth?
- are mobile `phones safe?
- designer clothes – are they worth the money?
- is there life elsewhere in our universe?
- why was there a tsunami?

These are just some of the questions that our 'Science for the 21<sup>st</sup> Century' course will try to answer.

### **GCSE Science**

In Years 9 and 10 you will follow the GCSE Science programme which leads to a Single Award GCSE. You will then continue into Year 11 with either the Additional Science or Additional Applied Science programmes to obtain your second GCSE.

**Additional Science** is considered to be more appropriate for those pupils who would normally consider further study in one or more of the Sciences (*e.g.* AS level *etc.*). It builds upon the knowledge and understanding of **Science** in Year 10. Pupils will be entered at Higher level only (grade A\* - C).

**Additional Applied Science** would be more appropriate for those pupils who would find Science more relevant in work related contexts. Pupils will be entered at Higher level (grade A\* - C) and Foundation level (grade C – G).

## *How you will be assessed*

In Years 9 and 10 you will be tested on the units which make up **Science:**

- three module exams + ideas in context paper 66.7%
- coursework 33.3%
- unit 1 will be assessed in May of Year 9.

In Year 11 if you take **Additional Science**, you will have the same scheme of assessment as in Year 10:

- three module exams + ideas in context paper 66.7%
- coursework 33.3%

Or, if you take the **Additional Applied** course in Year 11:

- three module exams 50%
- coursework 50%

This allows everyone to perform to his or her best potential.

More information about the course can be obtained from [www.21stcenturyscience.org/home](http://www.21stcenturyscience.org/home).

# BTEC Applied Science

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## *Why this subject?*

This course aims to provide the knowledge, understanding and skills necessary for pupils to enter into science-related employment or to progress to further vocational study of science at 16+.

It would be of particular benefit to pupils whose interest in science is more than theoretical and who might well be considering science-related employment.

## *What you will do*

The BTEC Level 2 Extended Certificate consists of 3 mandatory units plus optional units that provide for a combined total of 30 credits (where at least 16 credits must be at Level 2 or above).

### Mandatory Units

1. Chemistry and Our Earth
2. Energy and Our Universe
3. Biology and Our Environment

Optional Units include titles such as

The living body  
Monitoring the environment  
Investigating a crime scene  
Science in medicine  
Designing and making useful devices in science  
Exploring our universe  
Electronics in action  
Biotechnological procedures and applications  
Investigating human behaviour

During the course, pupils will have the opportunity to gain an insight into how the science industry works through a diverse approach to learning. In addition to class work and discussion, there will be site visits, the opportunity to learn from visiting experts, supervised practicals and research; pupils will gain an understanding of the key skills needed to work in the industry.

## *How you will be assessed*

You will complete a coursework project for each unit with the unit results contributing to your overall result. There are no final exams. The course has a specific work-related focus.

Upon successful completion of the course, pupils will receive a Level 2 Diploma in Applied Science, (equivalent to 4 GCSEs A\*-C). Pupils will receive a Pass, Merit or Distinction.