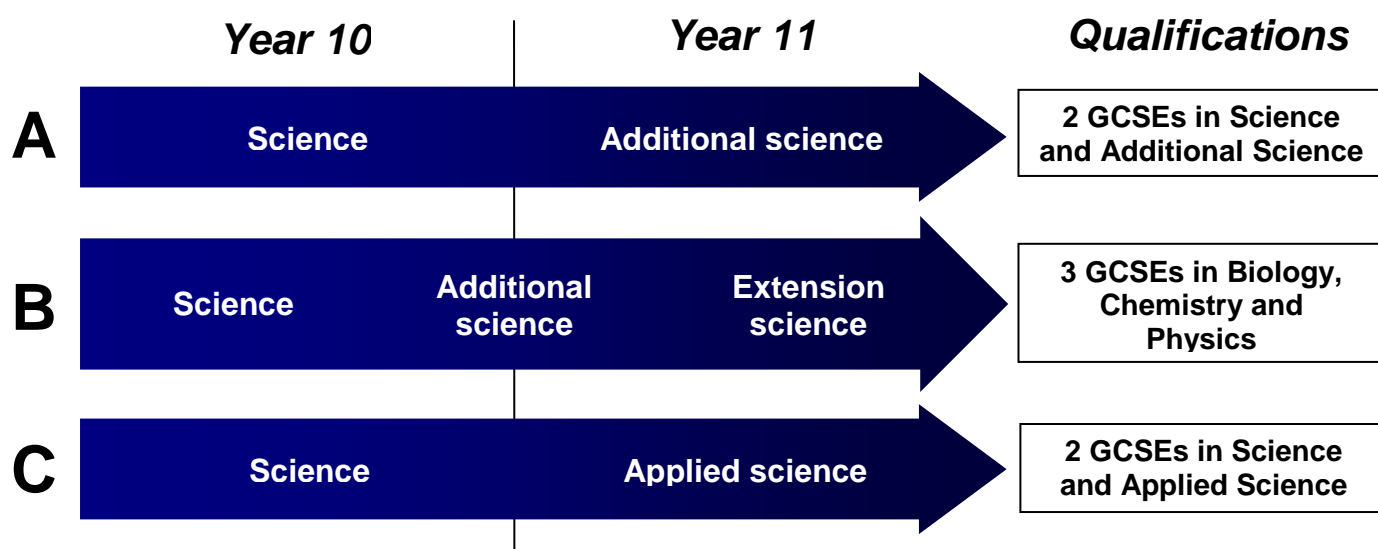


Options booklet entry for science

The suite of qualifications offered in science at GCSE will be 21st Century Science.

There are three options in science...



A. Dual Science

About this course

This course will lead to **two** separate GCSEs in Science and Additional Science.

Each of the two separate GCSEs has a different theme. GCSE Science aims to enhance scientific literacy and lead to better public understanding of science. It helps students make sense of the science they encounter in everyday life and appreciate what it can tell them about themselves, the environment and the Universe.

GCSE Additional Science develops fundamental scientific ideas with an emphasis on explanations and developing conceptual understanding.

Who is this course for?

This course is for those who are considering study of science or science-based qualifications post 16.

Teaching topics and unit tests

The topics about which students will learn are as follows...

Science	Additional Science
You and your genes Air quality Earth in the Universe	Homeostasis Chemical patterns Explaining movement
Keeping healthy Materials Radiation and life	Growth and development Chemicals of the natural env't Electric circuits
Life on Earth Food matters Radioactive materials	Brain and mind Chemical synthesis The wave model of radiation

The unit tests are taken over the course of year 10 and year 11, in January or June of each year. The units tests combined are worth **67% of the total marks**.

Coursework

There are three types of coursework that are completed during the course. These are...

- a data analysis task - based on results collected in science lessons.
- a case study – this is report that students write based on a choice of scientific topics that are currently (or have recently been) in the news.
Examples of the titles of topics that may be available...
 - Are we at risk from Avian flu?
 - Does genetically modified food damage our health?
 - Are mobile phones dangerous?
- an investigative project that will involve practical skills as well as analysis and evaluation skills.

The coursework is worth **33% of the total marks**.

B. Triple Science

This is an option taken in addition to core science and additional science. When taken with core science and additional science it will lead to **three** separate GCSEs in Biology, Chemistry and Physics.

Like course A – Dual Science, this course is designed to develop the conceptual understanding for those who are considering study of science or science-based qualifications post 16.

Please note: If you wish to study A-level sciences, it is **not** a requirement to study triple science.

Teaching topics and unit tests

The topics about which students will learn are as follows...

Biology	Chemistry	Physics
<u>Unit B1</u> You and your genes Keeping healthy Life on Earth	<u>Unit C1</u> Air quality Materials Food matters	<u>Unit P1</u> Earth in the Universe Radiation and life Radioactive materials
<u>Unit B2</u> Homeostasis Growth and development Brain and mind	<u>Unit C2</u> Chemical patterns Chemicals of the natural env't Chemical synthesis	<u>Unit P2</u> Explaining movement Electric circuits The wave model of radiation
<u>Unit B3</u> Further Biology	<u>Unit C3</u> Further Chemistry	<u>Unit P3</u> Further Physics

The unit tests are taken over the course of year 10 and year 11, in January or June of each year. The units tests combined are worth **67% of the total marks**.

Coursework

There are three types of coursework that are completed during the course. These are...

- a) a data analysis task - based on results collected in science lessons.
- b) a case study – this is report that students write based on a choice of scientific topics that are currently (or have recently been) in the news.
Examples of the titles of topics that may be available...
 - Are we at risk from Avian flu?
 - Does genetically modified food damage our health?
 - Are mobile phones dangerous?
- c) an investigative project that will involve practical skills as well as analysis and evaluation skills.

The coursework is worth **33% of the total marks**.

C. Dual Science – Applied

About this course

This course will lead to **two** separate GCSEs in Science and Additional Applied Science.

Each of the two separate GCSEs has a different theme. GCSE Science aims to enhance scientific literacy and lead to better public understanding of science. It helps students make sense of the science they encounter in everyday life and appreciate what it can tell them about themselves, the environment and the Universe.

GCSE Additional Science develops practical science capabilities. Each unit is based on the application of an important part of science in everyday life, extending the scientific and

procedural understanding from GCSE Science. This is delivered through work-related contexts.

Who is this course for?

This course is for those who are considering careers of a practical nature or study of Applied Science at post 16.

Teaching topics and unit tests

The topics about which students will learn will be...

Science	Applied Science
You and your genes Air quality Earth in the Universe	three units selected from the following... Life care Unit A1 Agriculture and food Unit A2 Scientific detection Unit A3 Harnessing chemicals Unit A4 Communications Unit A5 Materials and performance Unit A6
} Unit test 1	
Keeping healthy Materials Radiation and life	
} Unit test 2	
Life on Earth Food matters Radioactive materials	
} Unit test 3	

The unit tests are taken over the course of year 10 and year 11, in either January or June of each year. The units tests combined are worth **67% of the total marks for Science and 50% of the total marks for Applied Science.**

Coursework

There are three types of coursework that are completed during the course. These are...

- a) a data analysis task - based on results collected in science lessons.
- b) a case study – this is report that students write based on a choice of scientific topics that are currently (or have recently been) in the news.
 Examples of the titles of topics that may be available...
 - Are we at risk from Avian flu?
 - Does genetically modified food damage our health?
 - Are mobile phones dangerous?
- c) A work related portfolio for the Applied Science qualification.

The coursework is worth **33% of the total marks for Science and 50% of the total marks for Applied Science.**