



# Curriculum Overview

Curriculum Area: Biology, Chemistry and Physics (Triple)

Year: 10

**Curriculum covered** This curriculum is due to change in 2024 to adapt to changes in our KS3 Curriculum

## Autumn Term

**Biology** – (B3 Paper 1) Infection and response: Types, spread and defence of disease, Vaccinations, drugs & uses.

**Chemistry** – (C5 Paper 1) Energy changes: Exothermic and endothermic reactions, reaction profiles, energy changes of reactions

**Chemistry** – (C4 Paper 1) Chemical changes: Reactivity of metals, reactions of acids, Electrolysis

**Physics** – (P3 Paper 1) Particle model of matter: Density, Change of state, Internal energy, specific heat capacity, specific latent heat, pressure in gases.

## Spring Term

**Biology** – (B4 Paper 1) Bioenergetics: Photosynthesis, Limiting factors, Respiration, Metabolism, Exercise.

**Chemistry** – (C3 Paper 1) Quantitative chemistry: Chemical measurements, Conservation of mass, chemical equations, amount and masses, concentration.

**Physics** – (P4 Paper 1) Atomic structure: Model of the atom, Radioactive decay, hazards, uses & fission and fusion.

## Summer Term

**Biology** – (B7 Paper 2) Ecology: Adaptations, interdependence, competition, ecosystems, biodiversity & humans.

**Chemistry** – (C6 Paper 2) Rate and extent of chemical change: Rate of reaction, reversible reaction & yield

**Physics** – (P5 Paper 2) Forces: Types of forces, work done, Elasticity, motion, moments, braking & momentum

## Internal Assessment

In lesson time pupils will use formative assessments to check understanding at the point of learning to allow immediate intervention.

After every topic there will be an end of topic test that follows a similar structure to the GCSE exam papers. These will be approximately every term for each of Biology, Chemistry and Physics.

Each topic test has been designed to be in line with exam board requirements for demand and mathematical content.

The feedback from these tests will be used to improve the pupil's knowledge in this topic.

Year 10 pupils will sit a Year 10 exam in March which will be a paper 1 style GCSE paper for each Biology, Chemistry and Physics.

## Exam Board/Exam Paper Requirements/% Weighting

### Key dates (mocks and final exams)

AQA Biology GCSE

AQA Chemistry GCSE

AQA Physics GCSE

Each subject has two papers sat in May/June of Year 11.

Each paper is 1 hour 45 minutes each and 100 marks.

Each paper is 50% of the individual GCSE award.

Each subject has paper 1 and paper 2.

Each of the papers will assess knowledge and understanding from distinct topic areas.

Questions will comprise of multiple choice, structured, closed short answer, and open response.

## Helpful resources/revision guides/websites/exam preparation

Specification GCSE Biology:

[www.aqa.org.uk/subjects/science/gcse/biology-8461](http://www.aqa.org.uk/subjects/science/gcse/biology-8461)

GCSE Chemistry:

[www.aqa.org.uk/subjects/science/gcse/chemistry-8462](http://www.aqa.org.uk/subjects/science/gcse/chemistry-8462)

GCSE Physics:

[www.aqa.org.uk/subjects/science/gcse/physics-8463](http://www.aqa.org.uk/subjects/science/gcse/physics-8463)

BBC GCSE Bitesize Science

<http://www.bbc.co.uk/education/subjects/zrkw2hv>

Educake Science

<http://www.educake.co.uk>

Revision guides

AQA Biology, Chemistry and Physics science revision guides are sold from school or many other versions are available elsewhere.



# Curriculum Overview

## Curriculum Area: Combined Science (Trilogy)

Year: 10

**Curriculum covered** This curriculum is due to change in 2024 to adapt to changes in our KS3 Curriculum

### Autumn Term

**Biology** – (B3 Paper 1) Infection and response: Types, spread and defence of disease, Vaccinations, drugs & uses.

**Chemistry** – (C5 Paper 1) Energy changes: Exothermic and endothermic reactions, reaction profiles, energy changes of reactions

**Chemistry** – (C4 Paper 1) Chemical changes: Reactivity of metals, reactions of acids, Electrolysis

**Physics** – (P3 Paper 1) Particle model of matter: Density, Change of state, Internal energy, specific heat capacity, specific latent heat, pressure in gases.

### Spring Term

**Biology** – (B4 Paper 1) Bioenergetics: Photosynthesis, Limiting factors, Respiration, Metabolism, Exercise.

**Chemistry** – (C3 Paper 1) Quantitative chemistry: Chemical measurements, Conservation of mass, chemical equations, amount and masses, concentration.

**Physics** – (P4 Paper 1) Atomic structure: Model of the atom, Radioactive decay, half-life & contamination.

### Summer Term

**Biology** – (B7 Paper 2) Ecology: Adaptations, interdependence, competition, ecosystems, biodiversity & humans.

**Chemistry** – (C6 Paper 2) Rate and extent of chemical change: Rate of reaction, reversible reaction & yield

**Physics** – (P5 Paper 2) Forces: Types of forces, work done, Elasticity, motion, newton's laws, braking & momentum

### Internal Assessment

In lesson time pupils will use formative assessments to check understanding at the point of learning to allow immediate intervention.

After every topic there will be an end of topic test that follows a similar structure to the GCSE exam papers. These will be approximately every term for each of Biology, Chemistry and Physics.

Each topic test has been designed to be in line with exam board requirements for demand and mathematical content.

The feedback from these tests will be used to improve the pupil's knowledge in this topic.

Year 10 pupils will sit a Year 10 exam in March which will be a paper 1 style GCSE paper for each Biology, Chemistry and Physics.

### Exam Board/Exam Paper Requirements/% Weighting

#### Key dates (mocks and final exams)

#### AQA Combined Science Trilogy GCSE (2 GCSEs) –

There are six papers sat in May/June of year 11.

Each paper is 1 hour 15 minutes each and 70 marks.

Each paper is 16.7 % of the overall double GCSE award.

The six papers are Biology paper 1, Biology paper 2, Chemistry paper 1, Chemistry paper 2, Physics paper 1 & Physics paper 2.

Each of the papers will assess knowledge and understanding from distinct topic areas.

Questions will comprise of multiple choice, structured, closed short answer, and open response.

### Helpful resources/revision guides/websites/exam preparation

Specification GCSE Combines Science (Trilogy):

[www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464](http://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464)

BBC GCSE Bitesize Science

<http://www.bbc.co.uk/education/subjects/zrkw2hv>

Educake Science

<http://www.educake.co.uk>

Revision guides

AQA Trilogy combined science revision guides are sold from school or many other versions are available elsewhere.