



Curriculum Overview 2024 Onwards

Curriculum Area: Combined Science (Trilogy)

Year: 10

Curriculum covered From September 2024. This covers the Content from the paper 1 GCSE science exams.

Autumn Term

Biology – (B1 Paper 1) Cell Biology: cell structure, cell specialisation, cell differentiation, Microscopy, Cell division, chromosomes, mitosis and the cell cycle, stem cells, diffusion, osmosis, and active transport,

Biology – (B2 Paper 1) Organisation: animal & plant tissues, organs and organ systems, health & lifestyle issues.

Chemistry – (C1 Paper 1) Atomic Structure: atoms, elements, compounds and the periodic table.

Chemistry – (C2 Paper 1) Bonding: ionic bonding, covalent bonding, metallic bonding, and their properties.

Physics – (P1 Paper 1) Energy: Energy stores, power, efficiency, dissipation and national and global energy resources

Physics – (P2 Paper 1) Electricity circuit symbols, DC circuits electricity, mains electricity, power and national grid.

Spring Term

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

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 – (P3 Paper 1) Particle model of matter: Density, Change of state, Internal energy, pressure in gases.

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

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

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

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.