



Blue Coat Church of England Academy

Year: 10

Subject: Combined Science

Overview

Students follow one of two possible pathways in Science, dependent upon their KS4 option choices.

Those who chose Science as an option will be entered for three separate GCSE's in Biology, Chemistry and Physics, which provides them with 3 GCSE's. All other pupils are entered for Combined Science: Trilogy, which provides them with 2 GCSE's. For both pathways the exams will be a mix of short and long answer questions of 1-6 marks. There will also be some multiple choice questions.

As there is no coursework for the new specification students' practical skills will be assessed directly in the exam papers, however, there are a few 'required practicals' which students are required to carrying out within lessons and answer questions on these in the exam.

GCSE Combined Science

GCSE Combined Science: Trilogy syllabus from AQA is designed to suit students of all abilities, and contains many of the same lessons and required practicals as can be found in GCSE Biology, GCSE Chemistry and GCSE Physics specifications.

There are six 75 minute papers: two biology papers, two chemistry papers and two physics papers, each worth 16.7 %, for which each pupil will gain a double award,

equivalent to two GCSEs. This qualification is linear; this means that students will sit all their exams at the end of the two year course.

Through our **Kerboodle: AQA GCSE Sciences (9-1)** system all students have access to a digital version of the student textbook, exam questions, worksheets, interactive activities, presentations, animations and revision materials.

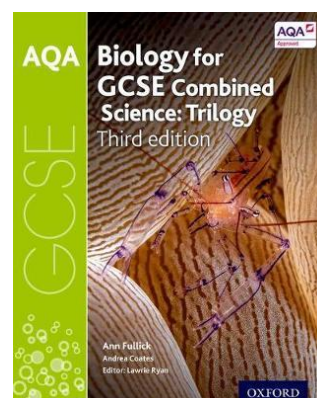
Biology

Biology Paper 1

1. Cell biology
2. Organisation
3. Infection and response
4. Bioenergetics

Biology Paper 2

1. Homeostasis and response
2. Inheritance, variation and evolution
3. Ecology



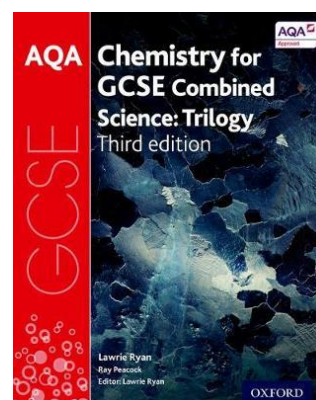
Chemistry

Chemistry Paper 1

1. Atomic structure and the periodic table
2. Bonding, structure, and the properties of matter
3. Quantitative chemistry
4. Chemical changes
5. Energy changes

Chemistry Paper 2

1. The rate and extent of chemical change
2. Organic chemistry
3. Chemical analysis
4. Chemistry of the atmosphere
5. Using resources



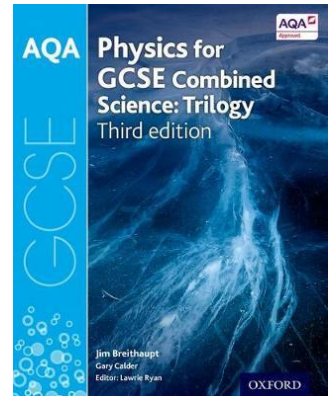
Physics

Physics Paper 1

1. Energy
2. Electricity
3. Particle model of matter
4. Atomic structure

Physics paper 2

1. Forces
2. Waves
3. Magnetism and electromagnetism





Blue Coat Church of England Academy

Year: 10

Subject: Science (Option)

Overview

Students follow one of two possible pathways in Science, dependent upon their KS4 option choices.

Those who chose Science as an option will be entered for three separate GCSE's in Biology, Chemistry and Physics, which provides them with 3 GCSE's. All other pupils are entered for Combined Science: Trilogy, which provides them with 2 GCSE's. For both pathways the exams will be a mix of short and long answer questions of 1-6 marks. There will also be some multiple choice questions.

As there is no coursework for the new specification students' practical skills will be assessed directly in the exam papers, however, there are a few 'required practicals' which students are required to carrying out within lessons and answer questions on these in the exam.

KS4 Science: Single Science Route

Separate Science courses from AQA are designed so all students can realise their potential and aspire to continue studying science at A Level. It contains many of the same lessons and required practicals as can be found in GCSE Combined Science: Trilogy, however it also has many more areas of Science to discover.

In the Single science route each student completes GCSE Biology, GCSE Chemistry, and GCSE Physics.

GCSE Biology has two 1 hour 45 minute papers each worth 50% of the GCSE, GCSE Chemistry has two 1 hour 45 minute papers each worth 50% of the GCSE, and GCSE Physics has two 1 hour 45 minute papers each worth 50% of the GCSE. This qualification is linear, this means that students will sit all their exams at the end of the two year course.

Through our **Kerboodle: AQA GCSE Sciences (9-1)** system all students have access to an digital version of the student textbook, exam questions, worksheets, interactive activities, presentations, Animations and revision material.

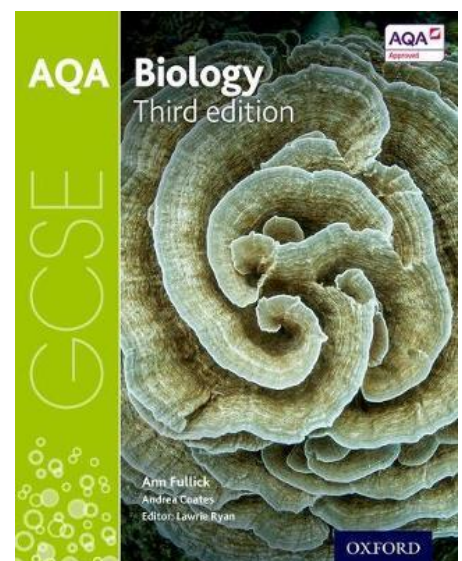
GCSE Biology

Biology Paper 1

1. Cell biology (and culturing microorganisms)
2. Organisation
3. Infection and response (and monoclonal antibodies, plant disease)
4. Bioenergetics

Biology Paper 2

1. Homeostasis and response (and the brain, eye body temperature, water balance, nitrogen balance, and Plant hormones)
2. Inheritance, variation and evolution (and DNA structure, cloning, theory of evolution and speciation)
3. Ecology (and trophic levels in an ecosystem and food production)



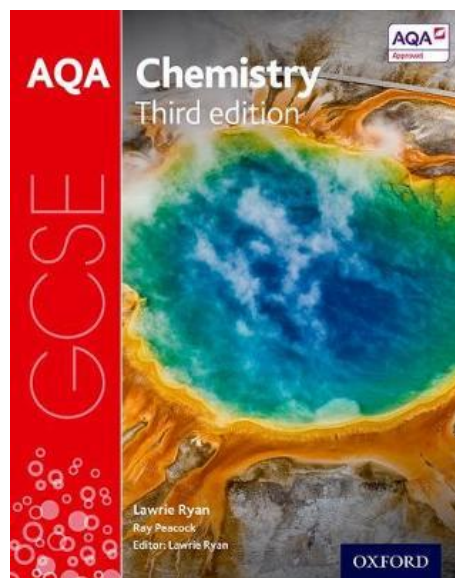
GCSE Chemistry

Chemistry Paper 1

1. Atomic structure and the periodic table (and transition metals)
2. Bonding, structure, and the properties of matter (and nanoparticles)
3. Quantitative chemistry (and yield economy, and concentrations of solutions)
4. Chemical changes (and titrations)
5. Energy changes (and chemical cells and fuel cells)

Chemistry Paper 2

1. The rate and extent of chemical change
2. Organic chemistry (and reactions of alkenes and alcohols Synthetic and naturally occurring polymers)
3. Chemical analysis (and spectrosopes)
4. Chemistry of the atmosphere
5. Using resources (and using materials and the haber process)



GCSE Physics

Physics Paper 1

1. Energy
2. Electricity (and static electricity)
3. Particle model of matter (and pressure in gases)
4. Atomic structure (and background radiation, fission and fusion)

Physics Paper 2

1. Forces (and moments, pressure, and changes in momentum)
2. Waves (and reflection, sound waves, echoes, light and lenses)
3. Magnetism and electromagnetism (and transformers and the National Grid)
4. Space physics (single science students only)

