# SCIENCE TRILOGY – COMBINED SCIENCE (AQA GCSE)

Combined science (trilogy) combines the three sciences (biology, chemistry and physics) to make a double award equivalent to two GCSEs. The combined trilogy specification has been developed in order to inspire and challenge students of all abilities and aspirations.

**Exam board and specification**

Exam board: AQA
Course code: 8464
Web link to specification:
http://www.aqa.org.uk/subjects/ science/gcse

**How is the course assessed?**

The qualification is linear so all exams will be taken at the end of Year 11. There is no coursework or controlled assessments, 100% of the grade is determined by exams. There will be six exams of equal weighting (covering Biology, Chemistry and Physics), each out of 70 marks, which will combine together to give two GCSEs. Each written exam will be 1hour 15minutes, offered at both foundation and higher tier.

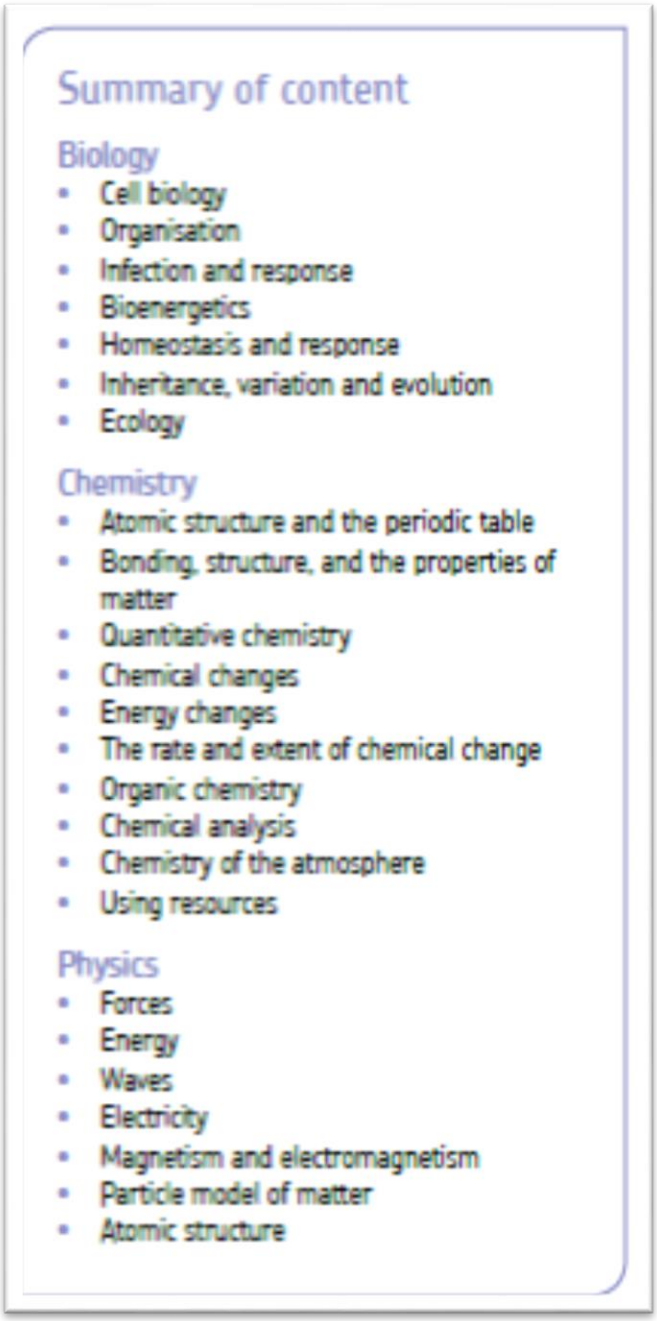
Practical work is at the heart of science, so we have placed it at the heart of both combined and separate specifications.

There are sixteen required practical's that have to be completed throughout the course for GCSE combined science and eight for each separate science.

**What will this qualification lead to?**

As well as providing a sound foundation for A level study in a number of subjects including biology, chemistry, physics, psychology, computer science and physical education, GSCEs in the three sciences can lead to a range of careers. These include; dentist, doctor, forensic scientist, teacher, astronaut, astronomer, audiologist, clinical psychologist, ecologist, engineer, laboratory technician, meteorologist, microbiologist, nanotechnologist, electrician, palaeontologist, pharmacologist, psychiatrist, psychologist, sport and exercise scientist, nutritionist, vet, zoologist and many more!

**What will be studied**



Summary of content

Biology
- Cell biology
- Organisation
- Infection and response
- Bioenergetics
- Homeostasis and response
- Inheritance, variation and evolution
- Ecology

Chemistry
- Atomic structure and the periodic table
- Bonding, structure, and the properties of matter
- Quantitative chemistry
- Chemical changes
- Energy changes
- The rate and extent of chemical change
- Organic chemistry
- Chemical analysis
- Chemistry of the atmosphere
- Using resources

Physics
- Forces
- Energy
- Waves
- Electricity
- Magnetism and electromagnetism
- Particle model of matter
- Atomic structure

# SCIENCE TRILOGY – SEPARATE SCIENCE (AQA GCSE)

Students following the triple science course will study three GCSEs in biology, chemistry and physics. All of these qualifications have been developed in order to inspire and challenge students of all abilities and aspirations. Whilst the content of this course is similar to that studied in the combined science qualification, it covers topics in more depth and includes additional, more challenging content.

**How is the course assessed?** The qualification is linear so all exams will be taken at the end of Year 11. There is no coursework or controlled assessments, 100% of grade is determined by exams.

**Web link to specification:** http://www.aqa.org.uk/subjects/ science/gcse

**Biology course code - 8461**

Exams

Two papers: each paper will assess knowledge and understanding from different topics. The questions will use clearer and simpler language, to assess students only on their scientific ability.

Duration: both papers are 1 hour 45 minutes.

Tier: Foundation and Higher.

Weighting: the papers are equally weighted. Each is worth 50% of the grade and has 100 marks available.

Question types: multiple choice, structured, closed short answer and open response.

**What will be studied?**

Summary of content

1. Cell biology
2. Organisation
3. Infection and response
4. Bioenergetics
5. Homeostasis and response
6. Inheritance, variation and evolution
7. Ecology

**Chemistry course code – 8462**

Exams

Two papers: each paper will assess knowledge and understanding from different topics. The questions will use clearer and simpler language, to assess students only on their scientific ability.

Duration: both papers are 1 hour 45 minutes.

Tiers: Foundation and Higher.

Weighting: the papers are equally weighted. Each is worth 50% of the grade and has 100 marks available.

Question types: multiple choice, structured, closed short answer and open response.

**What will be studied?**

Summary of content

1. Atomic structure and the periodic table
2. Bonding, structure and the properties of matter
3. Quantitative chemistry
4. Chemical changes
5. Energy changes
6. The rate and extent of chemical change
7. Organic chemistry
8. Chemical analysis
9. Chemistry of the atmosphere
10. Using resources

**Physics course code – 8463**

Exams

Two papers: each paper will assess different topics.

Duration: both papers are 1 hour 45 minutes.

Tiers: Foundation and Higher.

Weighting: the papers are equally weighted. Each is worth 50% of the grade and has 100 marks available.

Question types: multiple choice, structured, closed short answer and open response.

**What will be studied?**

Summary of content

1. Forces
2. Energy
3. Waves
4. Electricity
5. Magnetism and electromagnetism
6. Particle model of matter
7. Atomic structure
8. Space physics

**What will this qualification lead to?** As well as providing a sound foundation for A-level study in a number of subjects including biology, chemistry and physics, GSCEs in the three sciences provides Triple award equivalent to three GCSE's. It can lead to a range of careers. These include; dentist, doctor, forensic scientist, astronaut, astronomer, audiologist, clinical psychologist, ecologist, engineer, meteorologist, microbiologist, teacher, nanotechnologist, palaeontologist, pharmacologist, psychiatrist, psychologist, sport and exercise scientist, nutritionist, vet, zoologist and many more.