



STANGROUND ACADEMY

KS4 Science

AQA Combined science: Trilogy

This double award GCSE has six (1 hour 15 minutes) written papers: two in biology, two in chemistry and two in physics with each worth 16.7% of the final GCSE mark.

You will achieve a combined grade of two GCSE's, e.g. 6-6

AQA Separate sciences

Assessments follow a similar structure to the combined science. Each subject has two (1 hour 45 minute) examinations, with each paper contributing 50% of the final mark.

You will achieve three separate GCSE's e.g. Biology 6, Chemistry 6 and Physics 6.

| Overview of topics | | |
|---|--|---|
| Biology | Chemistry | Physics |
| B1 - Cell biology B2 - Organisation B3 - Infection and response B4 - Bioenergetics B5 - Homeostasis and response B6 - Inheritance, variation and evolution B7 - Ecology | C1 - Atomic structure and the periodic table C2 - Bonding, structure and properties of matter C3 - Quantitative chemistry C4 - Chemical changes C5 - Energy changes C6 - The rate and extent of chemical change C7 - Organic chemistry C8 - Chemical analysis C9 - Chemistry of the atmosphere C10 - Using resources | P1 - Energy P2 - Electricity P3 - The particle model P4 - Atomic structure and radiation P5 - Forces P6 - Waves P7 - Electromagnetism P8 - Space (Separate science only) |

Topics in bold will be assessed in PPE1.

Revision

1. CGP revision guide – see goody bag!
2. BBC Bitesize - <https://www.bbc.co.uk/bitesize/subjects/zp266yc>
3. GCSEPod <https://www.gcsepod.com/>
4. Educake – <https://www.educake.co.uk/>
5. Afterschool revision sessions

| | Thursday | | | Friday |
|----------------------|------------------------------------|--------------------------------------|------------------------------------|--------------------------|
| After school (3-4pm) | Combined science Biology C01 | Combined science Chemistry C02 | Combined science Physics C03 | Separate sciences C03 |

Exam tips

1 Topics are Covered in Different Papers

For AQA Trilogy GCSE Combined Science, you'll sit six exam papers at the end of your course.

| Paper | Time | No. of marks | Topics Assessed |
|-------------|--------------|--------------|------------------------|
| Biology 1 | 1 hr 15 mins | 70 | B1, B2, B3 and B4 |
| Biology 2 | 1 hr 15 mins | 70 | B5, B6 and B7 |
| Chemistry 1 | 1 hr 15 mins | 70 | C1, C2, C3, C4 and C5 |
| Chemistry 2 | 1 hr 15 mins | 70 | C6, C7, C8, C9 and C10 |
| Physics 1 | 1 hr 15 mins | 70 | P1, P2, P3 and P4 |
| Physics 2 | 1 hr 15 mins | 70 | P5, P6 and P7 |

You're expected to know the basic concepts in each of the sciences for both exams. So, for example, in Biology Paper 2 you could be expected to know some of the basics from B1, B2, B3 or B4.

2 There are Different Question Types

In each exam, you'll be expected to answer a mixture of multiple choice questions, structured questions, questions that have short, closed answers as well as open response questions.

For some open response questions, you'll be marked on the overall quality of your answer, not just its scientific content. So...

Always make sure:

- You answer the question fully.
- You include detailed, relevant information.
- Your answer is clear and has a logical structure.

3 You'll be Tested on your Maths...

At least 20% of the total marks for GCSE Combined Science will come from questions that test your maths skills.

For these questions, always remember to:

- Show your working — you could get marks for this, even if your final answer's wrong.
- Check that the units of your answer are the same as the ones they asked for in the question.
- Make sure your answer is given to an appropriate number of significant figures.

4 ...and on your Practical Skills

Whenever one of the required practicals crops up in this book, it's marked up like this..

PRACTICAL

...and there's a whole section on Practical Skills on pages 232-241.

- GCSE Combined Science contains 21 required practicals that you'll do during the course. You can be asked about these, and the practical skills involved in them, in the exams.
- At least 15% of the total marks will be for questions that test your understanding of the practical activities and practical skills.
- For example, you might be asked to comment on the design of an experiment (the apparatus and method), make predictions, analyse or interpret results... Pretty much anything to do with planning and carrying out the investigations.

5 You'll need to know about Working Scientifically

Working Scientifically is all about how science is applied in the outside world by real scientists.

For example, you might be asked about ways that scientists communicate an idea to get their point across without being biased, or about the limitations of a scientific theory.

You need to think about the situation that you've been given and use all your scientific savvy to answer the question. Always read the question and any data you've been given really carefully before you start writing your answer.