

AQA Combined Science: Trilogy (8464)

1. Students will leave with 2 GCSE grades in Science.
2. Students will sit **6 x 1h15m exams** (2 Biology, 2 Chemistry and 2 Physics papers)
3. Sports courses, engineering courses, A-Level Pathways have Science as a requirement.

Exam	Date
Biology Paper 1	10 th May (AM)
Chemistry Paper 1	17 th May (AM)
Physics Paper 1	22 nd May (AM)
Biology Paper 2	7 th June (PM)
Chemistry Paper 2	11 th June (PM)
Physics Paper 2	14 th June (PM)

Science Paper 1 Content – This will be on your mock exams.

Biology	Chemistry	Physics
Cell Structure & transport, Cell division, Organisation & digestive system, Organising animals and plants, Communicable and non-communicable diseases, Preventing disease, Photosynthesis, Respiration	Atomic structure, Periodic table, Structure & bonding, Chemical calculations, Chemical changes, Electrolysis, Energy changes	Conservation & Dissipation of Energy, Energy transfer by Heating, Energy Resources, Electric Circuits, Electricity in the Home, Molecules and Matter, Radioactivity.

Science Paper 2 Content

Biology	Chemistry	Physics
Homeostasis, Nervous system, Hormones & reproduction, Inheritance, variation & evolution, Animal & plant adaptations, ecosystems, pollution & recycling	Rates of chemical reactions, crude oil & hydrocarbons, Chromatography, chemical tests, Chemistry of Earth's atmosphere, Earths resources	Forces, Motion, Waves, electromagnetic waves, Magnetism, electromagnetism,

When revising for Science, remember the 4 R's

Recall: Flashcards, mind-maps, summary notes, reading revision notes, revision guides, concept maps, summary sheets, flow charts.

Rehearse: Practice questions, summary questions in revision guide, download questions from AQA, maths made easy, physics & maths tutor.

Rest: Take a break, have a drink/snack, move around, chat to a friend.



Repeat

- **40%** of your exam will need you to **demonstrate knowledge and understanding** of scientific ideas, scientific techniques and procedures (**RECALL, IDENTIFY, STATE, MATCH, SEQUENCE, DESCRIBE...**)
- **40%** of your exam will need you to **apply knowledge and understanding** of scientific ideas, scientific enquiry, scientific techniques and procedures (**APPLY, COMPARE, COMMENT ...**)
- **20%** of your exam will need you to **analyse information and ideas to interpret and evaluate, make judgements, draw conclusions, develop and improve** experimental procedures (**ANALYSE, JUSTIFY, EVALUATE, INTERPRET, EXPLAIN...**)

- **MATHS SKILLS** - Students will need to demonstrate key mathematical skills which will be taught throughout the course and also be assessed in the final exam
- **REQUIRED PRACTICALS** - These are completed during lessons throughout the course and will be examined in the final exams listed above – **be able to recall the equipment & the method**
- There will be selection of short and longer answers – **make sure you answer every question!**

How can you revise successfully for your physics paper?

1. Learn the equations. Last year, paper 1 contained 34 marks which students could only access if they knew their equations. The sooner they start, the better.
2. Follow the FIFA method and write out their workings in full. This method is designed to ensure they get as many marks as possible even if they can't fully answer the question.
3. Use their calculator for all mathematical working out!

How can you revise successfully for your biology paper?

1. Learn the key words! Create a glossary or find one on Doodle and learn the definitions.
2. Learn the key calculations for Biology: calculating percentage change, magnification calculations, areas of shapes.
3. Be confident in describing data on a graph, which means “say what you see...”. Expand that to explain why the data, looks like it does ...

How can you revise successfully for your Chemistry paper?

1. Students will be given a periodic table in the exam. They need to know the properties of Group 1, 7 and 0. They need to know what the atomic and mass numbers mean and how to use them.
2. Students should know how to produce dot and cross diagrams to represent atomic structure.
3. Students should know how to calculate relative formula mass.

How are we supporting our students.

1. Weekly past paper questions with mark scheme so all students get exam practice.
2. Weekly topic rewinds
3. Mock Exam Prep sessions afterschool.
4. Lunch & Learn on Tuesday, Thursday and Fridays.
5. Upcoming Super Science Saturdays
6. Afterschool revision
7. AQA examiners in the faculty.
8. The most talented teachers.
9. Free CGP revision guide.
10. Breakfast Revision Blast – Thursday 7.45 – 8.15.

How you can support your child.

1. Encourage regular revision.
2. Establish healthy daily habits
3. Find a way technology can work with(not against) your child.
4. Maintain high attendance levels.
5. Keep in regular contact with teachers.
6. Encourage your child to attend exam prep sessions.
7. Encourage students to revise with no distractions
8. Help students by quizzing them weekly with their recall sheets.
9. Parental support is eight times more important in determine a child's academic success than social class (DfE)



$$F = G \frac{m_1 m_2}{d^2}$$

Introduction to Mathematics

Year 11/2

$$F - E + V = 2$$

$$\frac{\partial^2 u}{\partial t^2} = c^2 \frac{\partial^2 u}{\partial x^2}$$

$$\phi(x) = \frac{1}{\sqrt{2\sigma^2}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$$

$$ds \geq 0$$

$$\frac{df}{dt} = \lim_{h \rightarrow 0} \frac{f(t+h) - f(t)}{h}$$

Maths

Mr Blade (Head of Faculty)

Maths GCSE – Edexcel

Maths GCSE – Course Overview

- Tiered – either Higher or Foundation
- 3 papers
- Each 1 hour 30 minutes
- Each worth 80 marks (240 marks in total)
- First paper will be non-calculator, the second and third paper with a calculator

Maths GCSE - Grading

Exam					Grade								
Board	Month	Year	Tier	Total	9	8	7	6	5	4	3	2	1
Edexcel	June	2017	H	240	190	157	124	96	68	41	27		
Edexcel	June	2018	H	240	202	170	139	109	79	50	35		
Edexcel	June	2019	H	240	198	167	137	108	80	52	38		
Edexcel	June	2022	H	240	194	165	137	104	71	38	21		
Edexcel	June	2023	H	240	203	174	145	112	79	47	31		
Edexcel	June	2024	H	240	197	167	137	105	73	42	26		

Maths GCSE - Grading


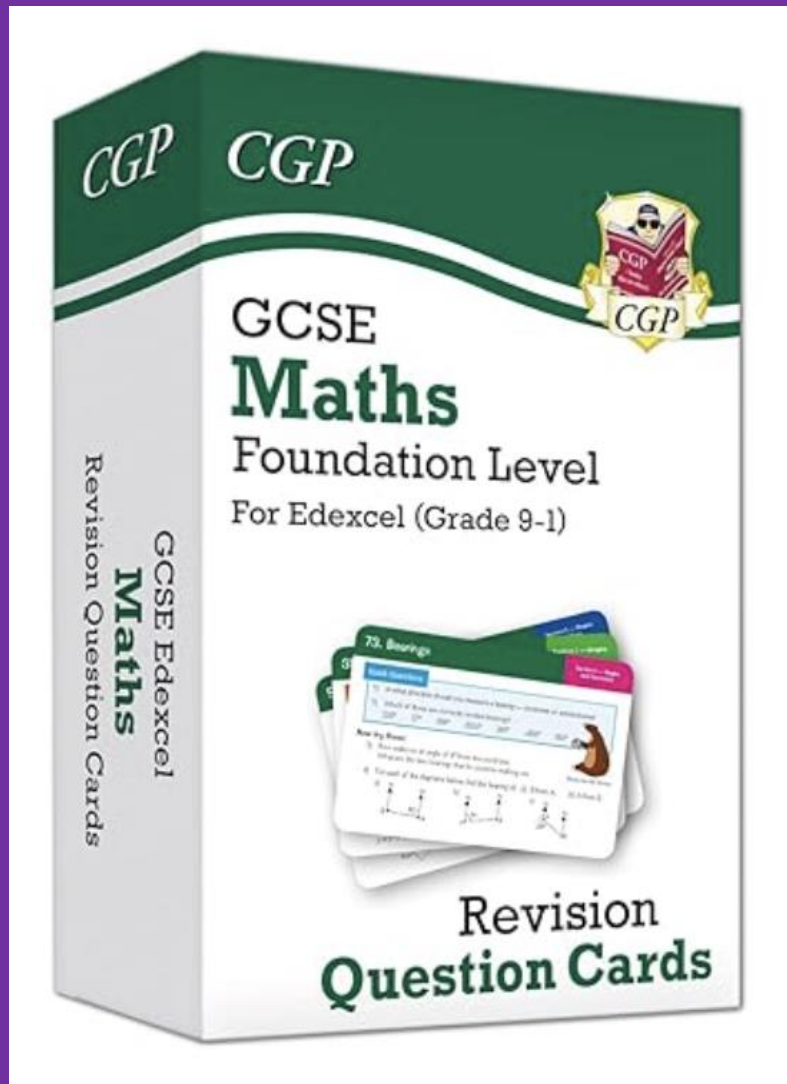
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Edexcel	June	2023	H	240	203	174	145	112	79	47	31		
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Maths GCSE – How the papers are broken down

Tier	Topic area	Weighting
Foundation	Number	22 - 28%
	Algebra	17 - 23%
	Ratio, Proportion and Rates of change	22 - 28%
	Geometry and Measures	12 - 18%
	Statistics & Probability	12 - 18%
Higher	Number	12 - 18%
	Algebra	27 - 33%
	Ratio, Proportion and Rates of change	17 - 23%
	Geometry and Measures	17 - 23%
	Statistics & Probability	12 - 18%

Maths GCSE – Revision Materials

- Flash cards




Make sure you know GCSE Maths with CGP!

Test yourself with these cards until you've nailed it...

- ✓ Questions on the front
- ✓ Answers on the back
- ✓ Every key topic covered

With cards this good, you can't keep a poker face 😊

P.S. Don't miss our cards for GCSE **Biology, Chemistry, Physics** and **Combined Science!**



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Maths GCSE – Revision Materials

- Flash cards

18. Algebra — Multiplying and Dividing

Section 2 — Algebra

Quick Questions

- 1) True or false? $a \times a \times a \times a$ can be written as $4a$.
- 2) Which expression below is the simplified version of $x \times x \times y \times y$?
 $4xy$ $(xy)^2$ xy^2 $2xy$

Now try these:

- 3) Fully simplify these expressions:
a) $6 \times p \times q \times 4$ b) $5x \times 2x$ c) $\frac{15a^2}{3a}$
- 4) Expand these brackets: a) $2(x + 3)$ b) $x(5 - 2x)$ c) $-3(2x - 5)$
- 5) A giant square chessboard has sides of length $(2x - 3)$ m. Find an expression for the perimeter of the chessboard, giving your answer in its simplest form.
- 6) Simplify $3(x + 1) + 4(x + 1)$ by expanding the brackets and collecting like terms.

16. Standard Form

Section 1 — Number

Quick Questions

- 1) Which of these numbers are written in standard form?
 2.0×10^8 45.2×10^{-7} 0.25×10^3 9.99×10^{-4}
- 2) Evaluate: a) 7×10^2 b) 9×10^{-3} c) 4.7×10^4 d) 5.2×10^{-2}

Now try these:

- 3) Convert these numbers into standard form:
a) 600 b) 547 000 c) 0.8 d) 0.0001
- 4) Work out these calculations, giving your answers in standard form:
a) $(3 \times 10^5) \times (2 \times 10^{-3})$ b) $(8 \times 10^7) \div (4 \times 10^4)$
- 5) Comet A has a mass of 5×10^{13} kg and comet B has a mass of 1.2×10^{13} kg. What is the total mass of the two comets? Give your answer in standard form.

Maths GCSE – Revision Materials

- Flash cards

17. Algebra — Collecting Like Terms

Section 2 — Algebra

Quick Questions

- Simplify the following expressions:
a) $a + a + a + a + a$ b) $5b - 2b$ c) $2c + 9c$
- True or false? $2a + 3b$ simplifies to give $5ab$.

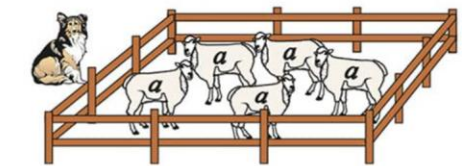
Now try these:

- Simplify the following expressions by collecting like terms:
a) $4a + 3a - a$ b) $2b + 6 - b + 3$
c) $6 + 3x - 2 - 4x$ d) $3 + y^2 - 1 + 3y^2$
- Simplify each expression: a) $x^2 + 3x + 2x^2 - x$ b) $4 + \sqrt{2} + 3 + 2\sqrt{2}$
- A triangle has sides of length x cm, $2x$ cm and $(x - 1)$ cm. Find a simplified expression for the perimeter of the triangle.

Section 2 — Algebra

ANSWERS

- a) $5a$ b) $3b$ c) $11c$
- False. (a and b are different terms, so you can't combine them.)
- a) $6a$
b) $b + 9$
c) $4 - x$
d) $2 + 4y^2$
- a) $3x^2 + 2x$
b) $7 + 3\sqrt{2}$
5) $x + 2x + (x - 1) = (4x - 1)$ cm



You can write the expression out again with like terms together to make it easier to combine them. If you move the terms around, make sure the $-$ signs stay with the correct terms.

Maths GCSE – Revision Materials

- Sparx



Maths GCSE – Revision Materials




- Hannah Kettle Maths




Write your name here

Surname Other names

Pearson Edexcel
Level 1/Level 2 GCSE (9–1)

Mathematics   

FOR FULL VIDEO SOLUTIONS
SCAN THE QR CODE

 [youtube.com/@hannahkettlemaths](https://www.youtube.com/@hannahkettlemaths) **Foundation Tier**

Half Past Paper – Week 1

Total Marks

Q	Topic	Marks	Sparx Code
1	Rounding integers	1	U480
3	Converting between fractions, decimals and percentages	1	U888
5	Finding the lowest common multiple	1	U751
7a	Using probability phrases	1	U803
7b	Using probability phrases	1	U803
7c	Writing probabilities as fractions, Probabilities of mutually exclusive events	3	U408,U683
9a	Identifying parts of circles	1	U767
9b	Identifying parts of circles	1	U767
11a	Finding factors and using divisibility tests	1	U211
11b	Finding factors and using divisibility tests	1	U211
13	Adding and subtracting integers, Using a written method to divide integers	3	U417,U453
15	Finding percentages of amounts without a calculator	2	U554
17	Converting between ratios, fractions and percentages	2	U176
19a	Adding and subtracting mixed numbers	2	U793
19b	Dividing with mixed numbers	2	U538
21	Converting units, Dividing integers, Finding the percentage an amount has changed	4	U388,U453,U278
23a	Plans and elevations	2	U743
23b	Finding the surface area of pyramids	4	U871
25	Plotting straight line graphs	3	U741
Total		36	

Maths GCSE – Revision Materials

- Hannah Kettle Maths

<https://www.youtube.com/channel/UCcgZeHfol1Hs8MjvoLs79oQ>

Maths GCSE – Revision Techniques and Tips

- Practice makes perfect!
- Doing maths is the most effective way of revising maths
- Avoid just reading over your working on a previous question – use a previous question to help answer another
- Don't just revise what you already know
- Use the practice papers you are given in lessons to revise specific topics at home
- If you can get your own scientific calculator, it will help!

Maths GCSE – Exam Techniques and Tips

- Don't fixate on a question you can't do – attempt to do something with it ...then move on!
- Pace yourself - a mark a minute
- If you think it write it
- Chase the staples
- Believe you can do it

Maths GCSE

- Mock prep sessions and exam prep sessions
- Exam prep classrooms
- Saturday school
- Half term revision
- Updated timetable during the exam season
- Mock and Practice papers
- WTM – Walking Talking Mock

“The only way to learn
mathematics is to do
mathematics”

Paul Halmos

AQA English Language

- Students will sit two exams
- English Language Paper 1 – Explorations in creative writing – **23/05/2025.**
- English Language Paper 2 – Writers' viewpoints and perspectives. – **06/06/2025.**
- Both exams are 1 hour and 45 minutes.

English Language Paper 1

- A test of reading skill – the English Language extracts have a reading age of around 16; extracts will be a page and a half.
- Question 1 – Reading Comprehension – Identifying 4 things.
- Question 2 – Analysis of language – commenting on how language techniques are used for effect.
- Question 3 – Analysis of structure – commenting on how structural features are used for effect.
- Question 4 – Evaluation of methods – commenting on how language and structure are used to create meaning.
- Question 5 – Creative writing – application of language and structural features in students' own writing.

English Language Paper 2

- A test of reading skill – the English Language extracts have a reading age of around 16; this paper has two extracts that are around a page and a half.
- Question 1 – Reading Comprehension – Identifying true/false statements.
- Question 2 – Summary and Synthesis – combining information and making inferences about what has been learned.
- Question 3 – Analysis of language – commenting on how language techniques are used to create meaning.
- Question 4 – Evaluation of methods – commenting on how language and structure are used to convey/put across a viewpoint.
- Question 5 – Creative writing – application of language and structural features in students' own non-fictional writing.

English Literature Paper 1

- Macbeth
- A Christmas Carol
- 1 hour and 45 minute exam – **12/05/2025**.
- Students are given an extract and are asked to make links between the extract and the whole text.

English Literature Paper 2

- An Inspector Calls
- Power and Conflict Poetry
- Unseen Poetry

- 2 hour and 15 minute exam – **20/05/2025.**

- AIC – students are given a choice of question, asked to comment on the whole text.
- Power and Conflict Poetry – students are given 1 poem and asked to compare to one other poem.
- Unseen Poetry – students are given an unseen poem and asked to analyse language and structure; also asked to compare methods to a further poem.

How to successfully revise for English

- Exposure to texts, especially non-fiction.
- Actively engaging with texts – annotating ideas.
- Recalling quotations.
- Creating mind-maps to enhance recall.
- Short, chunked, essay writing which is given to a teacher.

How to successfully revise for English

- Ensure your young person knows TQA for the language exams.
- Ensure your young person knows PEZER for literature exams.

How are we supporting our students.

1. Fortnightly revision in lessons with independent practice of a completed topic.
2. Agreed core knowledge that aims for all children to get a 7+.
3. Mock Exam Prep sessions afterschool.
4. Revise with Miss Avery in Room 22.
5. Upcoming Mock Mastery sessions.
6. AQA examiners in the faculty.
7. The most talented teachers.
8. Free CGP English Language Flashcards.

How you can support your young person.

1. Encourage regular revision – little and often.
2. Read with your young person - especially non-fiction (Guardian articles).
3. Ask your young person to explain their knowledge to you.
4. Establish healthy daily habits
5. Find a way technology can work with (not against) your child.
6. Maintain high attendance levels.
7. Keep in regular contact with teachers.
8. Encourage your young person to attend exam prep sessions.
9. Encourage your young person to revise with no distractions
10. Help your young person by quizzing them on the core-knowledge document.
11. Parental support is eight times more important in determine a child's academic success than social class (DfE)

Flashcard Practice (MCG/MCE)