

Mathematics

Ravina has a large number of coins in a jar.

All the coins in the jar are 50p coins.

She wants to find an estimate for the total amount of money in the jar.

Ravina takes a sample of 50 coins from the jar and marks each one with a marker.

She then puts the coins back into the jar.

Ravina then shakes the jar.

She now takes a sample of 30 coins from the jar and sees that 12 of them are marked.

Work out an estimate for the total amount of money in the jar.

Welcome to the Key Stage 4 Core Curriculum Evening



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By the end of the evening you will:

- have gained an understanding of the Key Stage 4 core curriculum and the GCSE reforms
- have gained an understanding of how best to support your child so that they achieve or exceed their targets
- know key dates and events during this year



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Introduction by Mr Smith, *Director of Outcomes*

Presentation by Mr Dyer, *Director of Mathematics and Numeracy*

Presentation by Miss Bull, *Second in English*

Presentation by Mr Booth, *Head of Science*

Question and Answer session



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Mathematics

Director of Learning

Mr A Dyer



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Mathematics

A Year 11 Chamberlayne mathematician is somebody who:
Can retain topic content and utilise key skills to understand and complete ability-appropriate GCSE tasks; is prepared to enter the next phase of their education/training fully skilled at their level to utilise their learnt mathematics across subject areas; can enter the adult world confident in their ability to complete both concrete and abstract tasks; can work independently with ease and whose oracy skills are highly developed

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Mathematics

- Exam board - Edexcel
- Mathematics GCSE 9-1 (from 2015)
- 4 lessons every week + intervention lesson for all every Tuesday/Friday after school
(Year 11 only)
- Students are taught in attainment sets throughout Key Stage 4 and can be moved following assessment and data reviews. Set 1 aims for Higher Tier entry, sets 2, 3 and 4 aim for Foundation Tier entry

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Mathematics

Tiers of entry

Higher – GCSE grades 4 – 9

Foundation – GCSE grades 1 – 5

Students, whose attainment falls in the 4/5 section, could be entered for either tier

Students are not allowed to enter for both tiers (the examinations for both tiers are held simultaneously)

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Mathematics

3 examination papers of 90-minute duration – one non-calculator, two calculator
The entire syllabus could be tested but, in practice only some of it is

To prepare thoroughly for this we need 3 years – hence starting in Year 9

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Homework



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Assessment throughout the course:

Years 9 and 10

End of Unit tests

(see Chamberlayne College website for details of content)

End of Year tests

Year 11

Frequent past paper tests including walking-talking mocks leading to projected grade for June examinations

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Sample questions Higher Tier

D is directly proportional to the cube of n .

Mary says that when n is doubled, the value of D is multiplied by 6

Mary is wrong.
Explain why.

Prove that

$(2n + 3)^2 - (2n - 3)^2$ is a multiple of 8
for all positive integer values of n .

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Mathematics

Asha is driving on the motorway.

The motorway is closed between junctions 10 and 11

She leaves junction 10 as there is a diversion. She drives 16 miles due East to Penn.

From Penn she drives on a bearing of 340° for 22 miles until she reaches junction 11

She drives at 60 miles per hour on this diversion.

Assuming that Asha would have driven at 70 miles per hour along the motorway, how many minutes will driving along the diversion add to her journey?

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Year 9

Unit tests (Foundation 9 tests, Higher 7 tests)

The final assessment is cumulative

Year 10

Unit tests (Foundation 5 tests, Higher 8 tests)

The final assessment is a cumulative assessment for all units to date

Year 11

Past paper tests approx. twice per half term some of which will be walking/talking mocks

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Class	Decimal Multiplication												
March 2013 - Higher	Scatter Diagrams and Correlation												
Non-Calculator	Questionnaires												
Teacher	Plotting Linear Graphs												
	Linear Sequences												
	Conversion Graphs												
	Simplify and Solve Linear Equations												
	Lowest Common Multiples												
	Index Laws												
	Angle Rules												
	Percentage Calculations												
	Ratio												
	Angles in Polygons												
	3	4	3	4	3	5	4	3	4	4	5	4	3
Student A	1	1	3	4	0	1	0	0	1	2	5	0	0
Student B	3	4	3	4	3	1	4	0	4	4	5	4	3
Student C	3	2	3	4	2	5	4	3	4	0	3	4	3
Student D	1	4	2	4	2	1	4	3	2	2	0	0	0
Student E	3	4	3	4	2	3	4	3	3	0	0	4	1

Example of a question-level analysis spreadsheet

Mathematics Past Paper Feedback

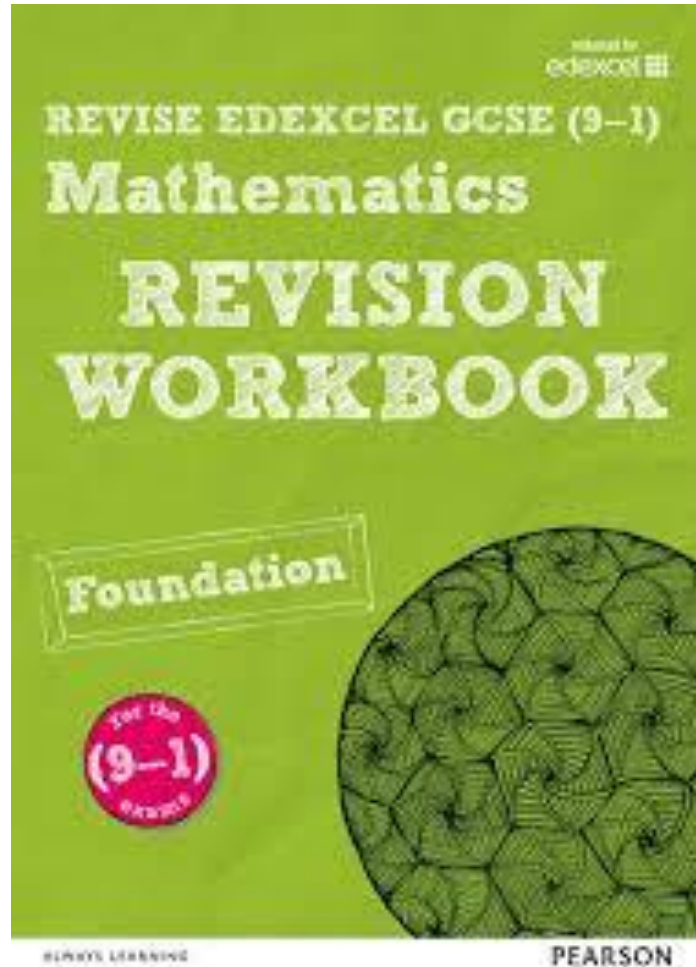
Paper: March 2013 - Higher Non-Calculator

Name: Student A

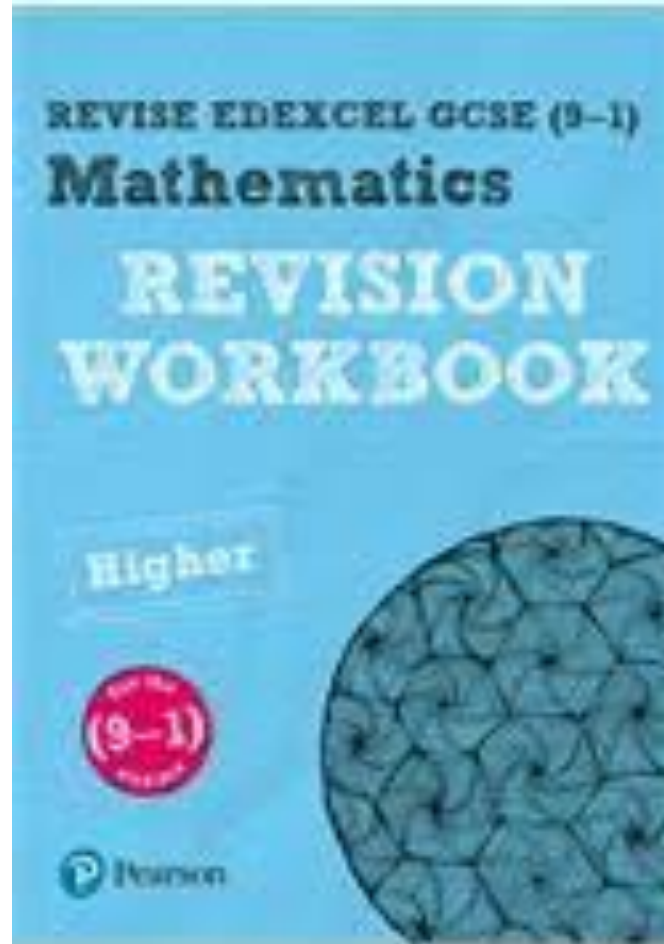
Teach: Teacher

Q	Topic		Tick
1	Decimal Multiplication	13	
2	Scatter Diagrams and Correlation	14	
3	Questionnaires	33	
4	Plotting Linear Graphs	44	
5	Linear Sequences	03	
6	Conversion Graphs	15	
7	Simplify and Solve Linear Equations	04	
8	Lowest Common Multiples	03	
9	Index Laws	14	
10	Angle Rules	24	
11	Percentage Calculations	55	
12	Ratio	04	
13	Angles in Polygons	03	

Example of a student QLA printout showing topic ability and focus for intervention

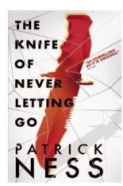


ISBN 9781447987925

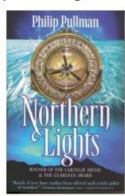


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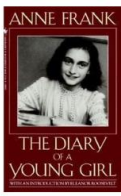
The school will provide these to students during the course of the autumn term
In Year 11



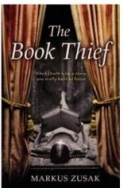
The Knife of Never Letting Go
– Patrick Ness



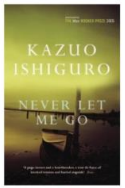
The Northern Lights
– Philip Pullman



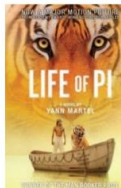
The Diary of a Young Girl
– Anne Frank



The Book Thief
– Markus Zusak



Never Let Me Go
– Kazuo Ishiguro



The Life of Pi

English

Director of Learning

Ms J Cole

Second in English

Miss Bull



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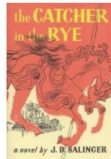
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One Flew Over the Cuckoo's Nest
– Ken Kesey



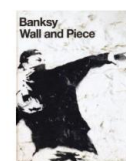
1984
– George Orwell



The Catcher in the Rye
– J.D. Salinger



The Curious Incident of
the Dog in the Night Time
– Mark Haddon



Wall and Piece
– Banksy



Wuthering Heights
– Emily Bronte

English Language and English Literature GCSE

Students are taught the skills of written and spoken communication, analysis and critical thought through the study of challenging and engaging texts.

'Good readers make good writers.'
Miss Bull, September 2018

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English and English Literature GCSE

- Exam board - AQA
- English Language and English Literature reformed GCSE (9-1 grading)
- 4 lessons every week
- Students are taught in attainment sets.



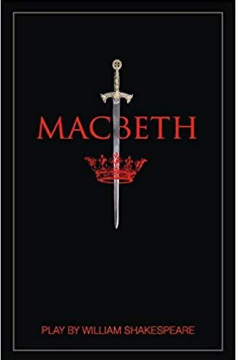
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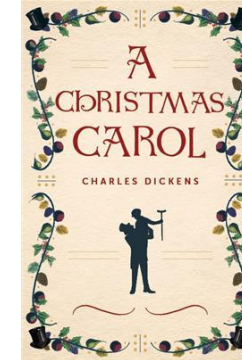
English Language GCSE

- **Paper 1- Explorations in Creative Reading and Writing (50%):**
 - Section A: Reading (one literature text)
 - Section B: Writing (descriptive or narrative writing)
- **Paper 2- Writer's Viewpoints and Perspectives (50%):**
 - Section A (one non-fiction text and one literary non-fiction text)
 - Section B (writing to present a viewpoint)
- **Non-examination Speaking and Listening Assessment**

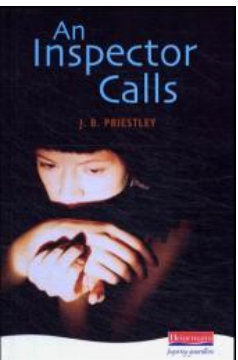




English Literature GCSE



- **Paper 1 Shakespeare and the 19th century novel (40%):**
 - Section A: Shakespeare ('Macbeth')
 - Section B: 19th century novel ('A Christmas Carol')
- **Paper 2- Modern texts and poetry (60%):**
 - Section A: Modern prose or drama ('An Inspector Calls')
 - Section B: Poetry (Love and Relationships)
 - Section C: Unseen Poetry



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Your teachers will...

- Fully prepare you for all your exams.
- Set relevant and engaging homework.
- Complete internal assessments every half term.
- Complete regular mock exam papers.
- Track your progress on the PIXL QLA and make the data available for you.
- Ensure you know your strengths and areas to improve.
- Prepare and deliver additional after school Enrichment sessions (Year 11)
- Liaise with Learning Support, Heads of Character and Culture, Pastoral Leaders etc. to support you with any issues that may arise.

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In return, you need to:

- Read and re-read the set texts.
- Complete homework tasks - these will enhance your learning and give you more opportunities to practice new skills.
- Read a range of texts: fiction, non-fiction, novels, poetry, newspapers, magazines, blogs, online articles etc.
- Attend school as much as possible.
- Engage in lessons, challenge yourself, be resilient.
- Ask your teacher for help.

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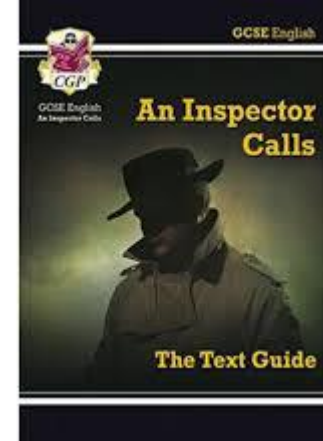
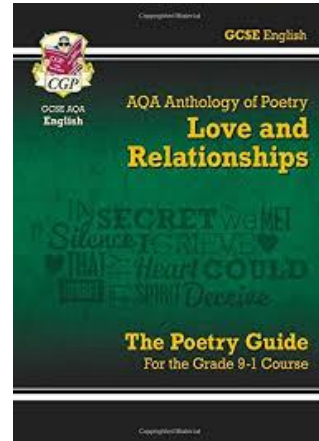
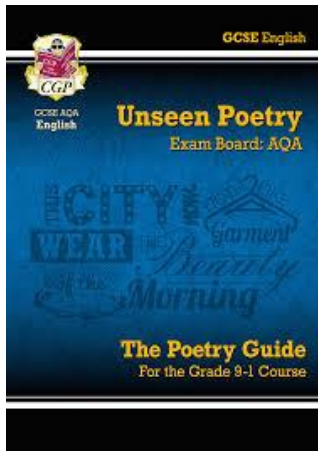
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Where to get help?

Websites:

BBC Bitesize - [www.bbc.co.uk/schools/gcsebitesize-english / english literature](http://www.bbc.co.uk/schools/gcsebitesize-english/english_literature)

Revision guides:



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Stay Positive,



Work Hard



and
Make it
Happen

Science

Director of Learning

Mr K Booth



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Our philosophy: science for all



- We believe that science has something to offer every student. That's why we have a GCSE qualification for Key Stage 4 – to suit students of all abilities and all aspirations.
- The subject content and required practical's in this specification are also in the separate GCSE Biology, Chemistry and Physics. So you have the flexibility to co-teach and potentially move our students between courses if it is suitable to do so.

Assessments

- There are **six** papers: two biology, two chemistry and two physics. Each of the papers will assess knowledge and understanding from distinct topic areas.

How it's assessed

Each paper:

- Written exam: 1 hour 15 minutes
- Foundation and Higher Tier
- 70 marks
- 16.7 % of GCSE
- Multiple choice, structured, closed short answer, and open response.
- Maths requirement Biology 10%, Chemistry 20% and Physics 30%

Assessment Objectives

- **AO1 - 40%**

Recall of scientific facts, figures, equations, processes or events.

- **AO2 - 40%**

Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.

- **AO3 - 20%**

Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.

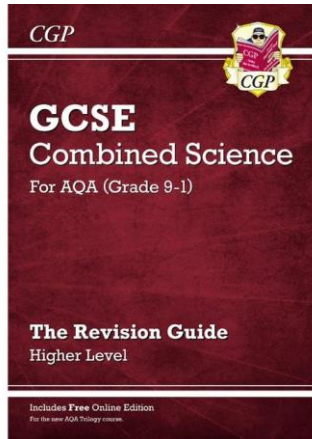
Practical Science

- There's no better way to learn about science than through purposeful practical activities as part of day to day teaching and learning. AQA offer **21** required practicals:
- A good practical experience will give students the skills to capitalise on the **15%** of practical-related marks available in the science exams.
- You can find more support and guidance for carrying out practical work on the AQA website,
<http://www.aqa.org.uk/resources/science/gcse/teach/practicals> on our dedicated 'Practical's' page:

Preparing for exams

- Visit aqa.org.uk/8464 for everything you need to prepare for our exams, including:
 - past papers, mark schemes and examiners' reports
 - specimen papers and mark schemes for new courses
 - literacy and numeracy support

Revision Guides and Course Materials



Advised Purchase

CGP GCSE Combined Science for AQA (Grade 9-1) Higher/Foundation

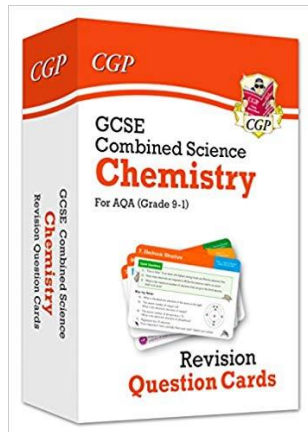
RRP £9.95

School £5.50

CGP GCSE Combined Science for AQA (Grade 9-1) Revision Question Cards

RRP £5.99 x 3 Sciences

School £3.00 x 3 Sciences



(Available for order from the school website)