



Perschore High School

Year 11 Parents' Information September 2017

The presentation from this evening's meeting and copies of this booklet can be found on the website from Friday 22nd September:
Parents – Year 11 Information Evening 2017

GCSE Maths Information

Assessment

The specification is AQA 8300

There are two tiers of entry: Higher and Foundation

Both have 3 written papers, each 1 ½ hours long

The mathematical demand increases as a student progresses through each paper.

It is possible (and expected) that some students may not be able to access questions towards the end of the paper.

Due to the challenging nature of the course, the Higher tier is aimed at more able students who are working towards a Grade 6 or above. For this reason, entries at the Higher tier have reduced slightly compared to the previous GCSE.

Exam dates:

- Paper 1 - Thu 24th May 9 am (non-calculator)
- Paper 2 - Thu 7th Jun 9 am (calculator)
- Paper 3 - Tue 12th Jun 9 am (calculator)

Grading

Old GCSE Grade	New GCSE Grade	New GCSE Tiers
	9	Higher
A*	8	
A	7	Foundation
B	6	
C/B	5	
C	4	
D	3	
E	2	
F/G	1	

Changes

20% more content than previous GCSE exams

Some AS Level content now in the Higher tier

Some Higher content now in Foundation

Significant number of reasoning and problem-solving questions

Revision

Students have access to two useful websites: vle.mathswatch.co.uk and www.mymaths.co.uk

vle.mathswatch.co.uk

Login: 00####@pershore (the numbers match the student's school login)

Password: divide

This website consists of video tutorials for every GCSE topic, sorted by tier, grade or topic. There are associated worksheets, interactive questions, one-minute maths revision videos and revision schedules to use prior to the exams (but suitable for the run-up to PPEs)

www.mymaths.co.uk

Login: pershore

Password: divide

Students also have individual logins but they aren't needed to access all the resources. The website has online lessons and homework (which is marked on screen)

Revision Materials and Tips

CGP revision guides (£2.50) and workbooks (£3.50) are available from school and can be paid for using ParentPay. CGP also sell numerous other useful revision aids which can be purchased online at any time.

There are no AQA past papers available yet but any older GCSE Maths past papers will provide useful revision material. AQA have also published specimen papers for students to use. These resources are all available on the AQA website www.aqa.org.uk

It is vital that students revise for the Maths exam by doing Maths – practising questions and not just reading notes. Students should revise a topic, complete some practice questions and then check their answers with the mark scheme.

Students should already be doing regular Maths revision – we recommend 20 to 30 minutes per day.

Students should try to memorise the formulas as soon as possible – they could use flash cards to practise and test themselves.

Maths Revision Support

The Maths Department have an open-door policy and teachers are always available to support students outside of lessons.

There will also be a chance for students to get support at tutor time – they can use the PCs to log on to Mathswatch or they can bring homework to work on and get help. Details will be given to students in class.

Equipment

We are not able to loan equipment to all students in the GCSE exams, so they must bring the following items for all Maths exams:

- Calculator *
- Ruler
- Protractor
- Pair of compasses
- Pencil (for diagrams only)

*We recommend the Casio fx-83GT Plus calculator but any scientific calculator is sufficient. It is important that students use the same calculator in lessons as in the exam so they are familiar with it.

Homework

Homework is set weekly in Year 11 with tasks designed to consolidate classwork, revise topics or practise problem-solving techniques. It is an essential part of exam preparation and it is expected that students research any technique they can't remember and ask for help if they need it. Tasks should be completed in full each week.

Formulas for GCSE Maths

There is no formula sheet in the exams, so students must memorise most formulas.

Students will only be given formulas for volume and surface area of spheres and cones, and the kinematics equations. These will be given in the question, if required.

The formulas students need to memorise are:

Higher and Foundation

Area of a rectangle = length x width

Area of a parallelogram = base x perpendicular height

Area of a triangle = $\frac{1}{2}$ x base x height

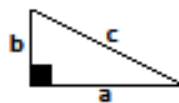
Area of a trapezium = $\frac{1}{2}$ (a + b) x height

Area of a circle = πr^2

Circumference of a circle = πd

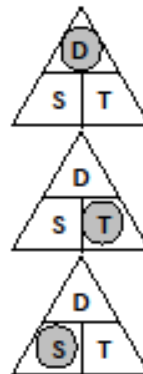
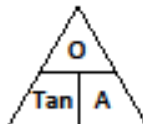
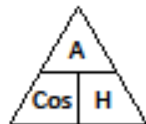
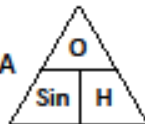
Volume of a prism = area of cross-section x length

Pythagoras' Theorem: $c^2 = a^2 + b^2$



Trigonometry

SOH CAH TOA



Distance = Speed x Time

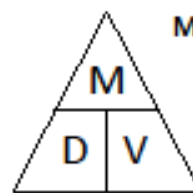
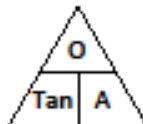
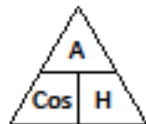
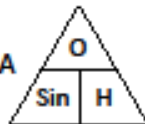
Time = $\frac{\text{Distance}}{\text{Speed}}$

Speed = $\frac{\text{Distance}}{\text{Time}}$

Volume of a prism = area of cross-section x length

Trigonometry

SOH CAH TOA



Mass = Density x Volume

Density = $\frac{\text{Mass}}{\text{Volume}}$

Volume = $\frac{\text{Mass}}{\text{Density}}$

Higher only

Quadratic Formula: $ax^2 + bx + c = 0$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Sine rule: $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

Cosine rule: $a^2 = b^2 + c^2 - 2bc \cos A$, and $\cos A = \frac{b^2 + c^2 - a^2}{2bc}$

Area of a triangle = $\frac{1}{2} ab \sin C$

**English & English Literature G.C.S.E.
AQA Exam board**

English G.C.S.E.

Paper 1: Explorations in Creative Reading and Writing	Paper 2 : Writers' viewpoints and perspectives
<p>What's assessed?</p> <p>Section A: Reading: one literature fiction text Section B: Writing: descriptive or narrative writing</p>	<p>What's assessed?</p> <p>Section A: Reading: one non-fiction text and one literary non-fiction text Section B: Writing: to present a viewpoint</p>
<p>Assessed written exam: 1 hour 45 minutes 80 marks 50% of GCSE 5th June</p>	<p>Assessed written exam: 1 hour 45 minutes 80 marks 50% of GCSE 8th June</p>
<p>Questions</p> <p>Reading (40 marks) (25%)– one single text</p> <p>1 short form question (1 x 4 marks) 2 longer form questions (2 x 8 marks) 1 extended question (1 x 20 marks)</p> <p>Writing (40 marks) (25%)</p> <p>1 extended writing question (24 marks for content, 16 marks for technical accuracy)</p>	<p>Questions</p> <p>Reading (40 marks) (25%)– two linked texts</p> <p>1 short form question (1 x 4 marks) 2 longer form questions (1 x 8, 1 x 12 marks) 1 extended question (1 x 16 marks)</p> <p>Writing (40 marks) (25%)</p> <p>1 extended writing question (24 marks for content, 16 marks for technical accuracy)</p>
<p><u>Non- examination Assessment: spoken language</u></p> <p><u>Completed in Year 10</u></p> <p><u>What's assessed?</u></p> <ul style="list-style-type: none"> • presenting • responding to questions and feedback • use of Standard English <p><u>Assessed</u> marked by teacher separate endorsement (0% weighting of GCSE)</p>	

**English Literature G.C.S.E.
AQA Exam board**

Paper 1: Shakespeare and the 19th Century novel	Paper 2: Modern Texts and poetry
<p>What's assessed?</p> <p>Shakespeare plays The 19th-century novel</p>	<p>What's assessed?</p> <p>Modern prose or drama texts The poetry anthology Unseen poetry</p>
<p>How it's assessed</p> <p>written exam: 1 hour 45 minutes 64 marks 40% of GCSE 22nd May</p>	<p>How it's assessed</p> <p>written exam: 2 hour 15 minutes 96 marks 60% of GCSE 25th May</p>
<p>Questions</p> <p>Section A Shakespeare:</p> <p>Students will answer one question on their play of choice. They will be required to write in detail about an extract from the play and then to write about the play as a whole.</p> <p>Section B The 19th-century novel:</p> <p>Students will answer one question on their novel of choice. They will be required to write in detail about an extract from the novel and then to write about the novel as a whole.</p>	<p>Questions</p> <p>Section A Modern texts: Students will answer one essay question from a choice of two on their studied modern prose or drama text.</p> <p>Section B Poetry: Students will answer one comparative question on one named poem printed on the paper and one other poem from their chosen anthology cluster.</p> <p>Section C Unseen poetry: Students will answer one question on one unseen poem and one question comparing this poem with a second unseen poem.</p>
<p>Mrs Haynes: 'Macbeth' Mrs Merrett: 'Macbeth' Mrs Edwards: 'Tempest' Mrs Durrant: 'Merchant of Venice' Mr McKenna: 'Tempest' Mr Spice: 'Romeo and Juliet' Mr Hodson: 'Romeo and Juliet'</p> <p>19th Century novel: 'Jekyll and Hyde': Mr McKenna and Mrs Haynes 'A Christmas Carol': all other English teachers</p>	<p>All teachers have studied the Power and Conflict section of the Poetry Anthology except Mr Spice and Mr Hodson who have studied Love and Relationships.</p> <p>All teachers have studied 'An Inspector Calls' as a modern text.</p>

It is useful for students to buy a copy of the texts that they are studying in order to annotate key scenes and quotations to learn. In addition, there are many revision guides available: ensure that the books state AQA G.C.S.E. taught from September 2015, examination 2017.

GCSE Science Information

Assessment

The specification is AQA 8464 Trilogy for all Combined Science students and 8461, 8462, and 8463 respectively for all Separate Science students.

There are two tiers of entry: Higher and Foundation

For all students there will be 2 exam papers for Biology, Chemistry and Physics (6 papers in total). The length of the papers differ for the Combined (1 hour 15 minutes) and Separate Sciences (1 hour 45 minutes).

AQA Trilogy Combined Science exam dates

B1	15.5.18 PM 1 hour 15 minutes
C1	17.5.18 AM 1 hour 15 minutes
P1	23.5.18 PM 1 hour 15 minutes

B2	11.6.18 AM 1 hour 15 minutes
C2	13.6.18 AM 1 hour 15 minutes
P2	15.6.18 AM 1 hour 15 minutes

AQA Separate Sciences exam dates

B1	15.5.18 PM 1 hour 45 minutes
C1	17.5.18 AM 1 hour 45 minutes
P1	23.5.18 PM 1 hour 45 minutes

B2	11.6.18 AM 1 hour 45 minutes
C2	13.6.18 AM 1 hour 45 minutes
P2	15.6.18 AM 1 hour 45 minutes

Grading Changes

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E	2	
F/G	1	

The content of the syllabus is of much higher demand. Some AS Level content now in the Higher tier

The examination papers are also going to be more demanding

More focus on recall of facts

No coursework - 15% of the overall marks for the qualification will come from questions based on the required practicals conducted throughout the course. **STUDENTS MUST REVISE THEIR REQUIRED PRACTICALS USING THEIR FOLDERS.**

Increased mathematical demand- Biology 10% of marks, Chemistry 20% of marks and Physics 30% of marks. Combined Science 20% in the ratio of 1:2:3

Increased levels of literacy demanded. Foundation: 10% minimum of marks and Higher: 15% minimum of marks

Revision

Students have access to MyGCSEScience websites. Details on how to access this will follow shortly. <https://www.my-gcsescience.com/>

There is also revision tips and materials available on my Pershore – GCSE 2018.

Throughout year 11 there will be regular end of topic tests. The PPEs will be examining different content covered over the year. Information on this can be found in the following tables.

Y11 Combined Science Pathway September 2017

Term	BIOLOGY	CHEMISTRY	PHYSICS
Autumn term 1 st half	B7 Photosynthesis & Plant Tissues 4.2.3 Plant tissues, organs & systems. 4.4.1 photosynthesis B8 Classification, Variation & Evolution 4.6.2 Variation and evolution. 4.6.4 Classification of living organisms	C8 How fast? 4.6 Rates and extent of Chemical Change	Complete P7 Waves 6.6 Waves Then start P8 Forces in balance 6.5 Forces
Topic tests / revision book pages	Photosynthesis & Plant Tissues Foundation pages 50-52, 38-40 Higher pages 50-53, 39-41	How Fast? Higher pages 142-149 Foundation pages 138-145	Waves Higher pages 218-226 Foundation pages 219-218
Autumn term 2 nd half	B9 Reproduction 4.6.3 The development of understanding of genetics and evolution 4.6.1 reproduction	C9 Organic Chemistry 4.7 Organic chemistry	P9 Motion 6.5 Forces
PPE 1 Revision book pages	DECEMBER PPE 1 Paper 1 Exam Paper Topics to revise: Cell Biology, Organisation, Infection & Response, Bioenergetics Foundation pages 11-p55 Higher pages 11 – p56	DECEMBER PPE 1 Paper 1 Exam Paper Topics to revise: Atoms and the periodic table; Bonding; Quantitative chemistry, Chemical changes; and Energy. Higher pages 96-141 Foundation pages 96-137	DECEMBER PPE 1 Paper 1 Exam Paper Topics to revise: Energy; Electricity; Particle model of matter; and Atomic structure. (Higher guide p167-200) (Foundation guide p167-202)

Spring term 1 st half	B10 Biodiversity & Human Interactions 4.7.3 Biodiversity and the effect of human interactions on ecosystems	C10 Using Resources 4.10 Using resources + Haber process and reversible reactions	P10 Forces in Motion 6.5 Forces
Topic tests /revision book pages	Reproduction Foundation pages 66-72 Higher pages 68-74 Biodiversity & Human Interactions Foundation & Higher pages 91-94	Using Resources Higher pages 161-166 Foundation pages 159-166	Forces Higher pages 201-217 Foundation pages 203-218
Spring term 2 nd half	Syllabus completed Revision activities	Syllabus completed Revision activities	Syllabus completed Revision activities
PPE 2 Revision book pages	MARCH PPE 2 Paper 2 Exam Paper Topics to revise: Homeostasis & Response, Inheritance, Variation & Evolution, Ecology Foundation pages 57-94 Higher pages 58-94	MARCH PPE 2 Paper 2 Exam Paper Topics to revise: How Fast? Organic chemistry; Analysis; atmosphere; and Using resources. Higher pages 142-166 Foundation pages 138-166	MARCH PPE 2 Paper 2 Exam Paper Topics to revise: Forces, Waves and Magnetism and electromagnetism Higher pages 201-231 Foundation pages 203-231
Summer term 1 st half	REVISION CIRCUS REVISION IN LESSONS	REVISION CIRCUS REVISION IN LESSONS	REVISION CIRCUS REVISION IN LESSONS
	B1 15.5.18 PM 1 hour 15 min B2 11.6.18 AM 1 hour 15 min	C1 17.5.18 AM 1 hour 15 min C2 13.6.18 AM 1 hour 15 min	P1 23.5.18 PM 1 hour 15 min P2 15.6.18 AM 1 hour 15 min

Y11 Separate Science Pathway September 2017

Term	BIOLOGY	CHEMISTRY	PHYSICS
Autumn term 1 st half	B7 Photosynthesis & Plant Tissues 4.2.3 Plant tissues, organs & systems. 4.4.1 photosynthesis B8 Classification, Variation & Evolution 4.6.2 Variation and evolution. 4.6.4 Classification of living organisms B11 Food Production & Trophic Levels 4.7.4 Trophic Levels in an ecosystem, 4.7.5 Food Production	C8 How fast? 4.6 Rates and extent of Chemical Change	P7 Waves 4.6 Waves
Topic tests and revision book pages	Photosynthesis & Plant Tissues Pages: 57-58, p42-44 Food Production & Trophic Levels Pages: 120-124	How Fast? Pages: 67-74	Waves Pages: 73-91
Autumn term 2 nd half	B8 Completion 4.6.3 The development of understanding of genetics and evolution B9 reproduction 4.6.1 reproduction	C9 Organic Chemistry 4.7 Organic chemistry	P8 Forces in balance and start P9 Motion 4.5 Forces and their interactions
PPE 1 Revision book pages	DECEMBER PPE 1 Paper 1 Exam Paper Topics to revise: Cell Biology, Organisation, Infection & Response, Bioenergetics Pages : 11-63	DECEMBER PPE 1 Paper 1 Exam Paper Topics to revise: Atoms and the periodic table, Bonding, Quantitative chemistry, Chemical changes and Energy. Pages :12-66	DECEMBER PPE 1 Paper 1 Exam Paper Topics to revise: Energy, Electricity, Particle model of matter; and Atomic structure. Pages 11-50
Spring term 1 st half	B9 Completion 4.6.1 reproduction B10 Biodiversity & Human Interactions 4.7.3 Biodiversity and the effect of human interactions on ecosystems	C10 Using Resources 4.10 Using resources, Haber process and reversible reactions	P10 Forces in motion 4.5 Forces and their interactions

Topic tests and revision book pages	Reproduction Pages: 84-94 Biodiversity & Human Interactions Pages: 116-19	Using Resources Pages: 96-106	Forces Pages 51 - 72
Spring term 2 nd half	Syllabus completed Revision activities	Syllabus completed Revision activities	Syllabus completed Revision activities
PPE 2 Revision book pages	MARCH PPE 2 Paper 2 Exam Paper Topics to revise: Homeostasis & Response, Inheritance, Variation & Evolution, Ecology Pages : 65- 124	MARCH PPE 2 Paper 2 Exam Paper Topics to revise: How Fast? Organic chemistry, Analysis, Atmosphere and Using resources. Pages : 67-106	MARCH PPE 2 Paper 2 Exam Paper Topics to revise: Forces, Waves, Magnetism and electromagnetism, Space Physics. Pages 51-103
Summer term 1 st half	REVISION CIRCUS REVISION IN LESSONS	REVISION CIRCUS REVISION IN LESSONS	REVISION CIRCUS REVISION IN LESSONS
	B1 15.5.18 PM 1 hour 45 min B2 11.6.18 AM 1 hour 45 min	C1 17.5.18 AM 1 hour 45 min C2 13.6.18 AM 1 hour 45 min	P1 23.5.18 PM 1 hour 45 min P2 15.6.18 AM 1 hour 45 min