

Subject: Mathematics

Exam Board: AQA 8300

<https://www.aqa.org.uk/subjects/mathematics/gcse/mathematics-8300/specification-at-a-glance>

Overview

- One Non-Calculator Paper (Paper 1) 90 minutes and one Calculator Paper (Papers 2)
- 90 minutes for each paper and marked out of 80
- Full mathematics equipment required.

Revision List – Higher Paper 1 and 2

Paper 1 – Non-Calculator		Paper 2 – Calculator	
Topic	Detail	Topic	Detail
Number (see Ratio)		Number (see Ratio)	
Arithmetic	Decimal	Properties	Prime number
Fractions	Arithmetic		Cube number
	Fraction of a number		Reciprocal
	Value as fraction of another		Decimal places
	Recurring decimals as fractions		Bounds
Percentage	Percentage as operator	Fractions	Products
Indices	Laws of Indices	Indices	Negative
Standard Form	Conversion	Algebra	
	Calculation	Equations	Of a circle
Surds	Simplification		Linear
			Quadratic
Algebra			Number line inequality
Equations	Of a straight line	Manipulation	Factorisation of quadratic
	Linear		Multiply out
	Identity		Completing the square
Manipulation	Simplification of algebraic fraction	Graphs	Coordinate problem
	Simplification		Perpendicular lines
	Factorisation of quadratic		Turning point
	Change subject	Functions	Inverse
	Recognise	Sequences	Triangular number
Sketch function			
Graphs	Speed time	Ratio (see Number)	
	Inequality region	Ratio	Share into a ratio
	Interpret		On a line
	Algebraic	Fraction	To percentage
Sequences		Conversions	Time
Ratio (see Number)		Applications	Equation to percentage
Ratio	Simplest form		Rate of output
	Proportion problem		Pressure
Geometry and Measures		Percentage	Percentage increase
Shape	Congruence		Percentage decrease
	Prism	Geometry and measures	
	Faces	Area and Volume	Compound shape
	Exact trigonometric values		Cone
Sector a of circle	Hemisphere		
Area and Volume	Vector geometry		Volume scale factor
Vectors	Region	Shape	Plan
			Pythagoras
Constructions		Measures	Time
Statistics		Other	Geometric proof
	Cumulative frequency	Statistics	
Probability			Estimation from sample
	Venn diagram		Pie chart
	Tree diagram		Mean
	Expected value		Probability
	Independent events		Relative frequency
			Expected value
			Notation

Useful revision resources

Websites

- Mathswatch - <https://vle.mathswatch.co.uk/vle/>
- Corbett Maths – <https://corbettmaths.com/>
- GCSEPod - <https://www.gcsepod.com/>
- Seneca Learning - <https://senecalearning.com/en-GB/>
- BBC Bitesize Learning - <https://www.bbc.co.uk/bitesize/examspecs/z8sg6fr>
- Oak National Academy - <https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/math>
- Third Space Learning - <https://thirdspacelearning.com/secondary-resources/>

Recommended Revision Guides

- Collins GCSE AQA revision guides - £4.50 from your mathematics teacher
- Corbett Maths revision cards - £6.50 from your mathematics teacher

Recommended Calculators

Casio fx-83 GTX, fx-85 GTX, Casio Classwiz EX-991 (recommended if continuing onto A-Level Mathematics)

Maths Sets

We have a number of Maths Sets available from the Mathematics Department Office and are priced at £1, these come in an exam-friendly transparent pencil case

Revision Tips

Revision for Mathematics is based upon practice (and more practice). You need to be confident at the skills and concepts that make up the course in order to be able to work through the more challenging problems. Revision should be interactive, not just reading notes

Students can work through the Mathswatch Videos and can use the Mathswatch 6 week plan to help support them

A potential plan of action would be

- Work through the plans below watching the relevant videos (try the one-minute videos first and if you do not understand then watch the longer videos)
- Attempting the interactive questions if needed
- Work through maths problems and past papers.
- Do not just read your notes/revision guides as you need to practice your Maths skills.