

Subject: Mathematics

Exam Board: AQA 8300

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

Paper 1: Non Calculator - Foundation

Number

Arithmetic – four operations, negative numbers, order of operations, estimations

Fractions- fraction of a number, laws of indices

Standard form – conversion, calculations

Other – inequality notation, systematic listings

Algebra

Equations – linear

Graphs – recognise, plot, linear graph, intersection of lines, interpret

Reasoning - formula

Sequences- sequence rule to find a term

Ratio

Conversion – lengths

Percentage- percentage of an amount, amount as a percentage

Fraction – fraction less than 1

Ratio- simplest form, ratio to fraction

Applications – cost problem, density

Geometry and Measures

Shape – name circle part, types of triangles, translation

Area and volume – perimeter, sector of a circle

Angles – triangles

Constructions – regions

Statistics

Two-way table, average problem, outliers

Probability

Problems involving probability

Venn diagram

Time given to complete this paper: 90 minutes

Paper 2: Non-Calculator Foundation

Number

Arithmetic – order of operations

Fractions- fraction of a number, improper fraction, fraction to decimal

Properties – number problem, prime number, cube number, decimal place

Other – inequality notation

Algebra

Equations – linear

Manipulation – equivalent expressions, terms, multiply out, factorisation

Graphs – coordinates, midpoint, point on line, gradient of a line, interception of a line, equation of a line

Ratio

Conversion – time

Percentage- ratio and percentages, percentage increase and decrease

Ratio – n:1 form

Applications – proportion problems, scale diagram, better value, ratio to percentage, equation to percentage, rate of output

Geometry and Measures

Shape – draw shape, quadrilateral, parallelogram, part of circle, Pythagoras

Measures – time problem

Area and volume – compound shape

Statistics

Pie chart, range, mean

Probability

Relative frequency

Expected values

Tree diagram

Time given to complete this paper: 90 minutes

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.