

A-Level Further Maths Handbook



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# Course details

## Qualification

AQA A-Level Further Maths

## Specification

## [AQA | AS and A-level | Further Mathematics | Specification at a glance](https://www.aqa.org.uk/subjects/mathematics/as-and-a-level/further-mathematics-7367/specification-at-a-glance)

We follow the Mechanics and Decision model (MD)

## Entry Requirements

* Grade 8 in GCSE Mathematics

Calendar

Year 12 maths is taught up until December. Followed by the following content split between Miss McLean and Mr Kendall.

|  |  |  |
| --- | --- | --- |
|  |  Maths | Further Maths |
| Pure | AlgebraQuadratics and CubicsInequalities and Simultaneous equationsCo-ordinate geometry, Graphs and CirclesTrigonometryExponentials and LogarithmsVectorsThe Binomial ExpansionDifferentiationIntegration | Complex Numbers 1Curve Sketching 1Matrices 1Vectors 1Algebra and SeriesIntegration 1 |
| Mechanics | KinematicsForces and Newton’s Law | Forces and EnergyMomentumCircular Motion |
| Applied | Sampling, Data Presentation and InterpretationProbabilityStatistical DistributionsStatistical Hypothesis Testing | Graphs and Networks 1Critical Path Analysis 1Linear Programming and Game TheoryAbstract Algebra |

Year 13 maths is taught up until December. Followed by the following content split between Miss McLean and Mr Kendall.

|  |  |  |
| --- | --- | --- |
|  |  Maths | Further Maths |
| Pure | Algebra and FunctionsSequences and SeriesParametric EquationsDifferentiation 2IntegrationThe Binomial Expansion 2Trigonometry 2VectorsNumerical Methods | SeriesComplex Numbers 2Curve Sketching 2Differential EquationsIntegration 2Partial fractionsNumerical MethodsMatrices 2Vectors 2 |
| Mechanics | Kinematics 2DynamicsMoments | Circular Motion 2Centres of Mass and Stability |
| Applied | Correlation and RegressionProbability 2The Normal Distribution | Graphs and Networks 2Critical Path Analysis 2Linear Programming and Game Theory 2Group Theory |

## Contact details

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# Further Maths Specifics

Further Maths is taught alongside maths. This handbook is to supplement the maths handbook which also applies to you. Please look carefully at the super-curricular information. We will supplement this with offers from the AMSP (Advanced Maths Support Programme) throughout the year.

Maths content is typically taught between September and December. Further Maths content is then typically taught between January and June. Remember, you are taking two full A Levels in the same time other students are taught one so expect a fast lesson pace.

Independent work and consolidation is the key to success in Further Maths. We very much need you to be proactive and seek help from us when you are unsure.

We will issue you with 5 hours in booklets plus the QR code booklet linking to independent working each half term. Please refer to the 5 hours in page in the maths handbook.

## Internal assessments

Due to the speed at which further maths is taught, all assessments will match the external exams. For example, on finishing the pure content in year 12, you will sit a pure AS paper. On finishing the mechanics content in year 13 further maths, you will sit a mechanics further maths paper etc..

External Assessments

A-Level Further Maths is a linear course, and you will sit all external exams at the end of Year 13. These take the form of three papers, as shown below:

|  |  |  |
| --- | --- | --- |
| **What's assessed****Paper 1 and Paper 2** May assess content from the following sections:A: ProofB: Complex numbersC: MatricesD: Further Algebra and FunctionsE: Further CalculusF: Further VectorsG: Polar coordinatesH: Hyperbolic functionsI: Differential equationsJ: TrigonometryK: Numerical Methods

|  |
| --- |
| **Paper 3**One question paper answer booklet on Mechanics and one question paper answer booklet on Discrete. |
| **How it's assessed**Written exam: 2 hours100 marks33⅓ % of A-level**Questions**A mix of question styles, from short, single-mark questions to multi-step problems. |

 |

## Grade boundaries

Below is an indication of the highest grade boundaries that have been used in AS and A-Level Chemistry exams, up to 2023. These are indicative only – actual grade boundaries used for in-class assessments may vary.

|  |  |  |
| --- | --- | --- |
| **Grade** | **AS Further Maths (Year 12)** | **A-Level Further Maths (Year 13)** |
| A\* |  | 71% |
| A | 73% | 59% |
| B | 65% | 48% |
| C | 57% | 38% |
| D | 49% | 28% |
| E | 42% | 17% |