



ASHLAWN
SCHOOL

MATHEMATICS CURRICULUM MAP

Key Stage 4

FURTHER STUDY

- A-Level Mathematics
- A-Level Further Maths
- Level 3 Core Maths
- Mathematics Degree
- STEM Degree

CAREER PATHS

- STEM subjects
- Finance
- Insurance and Risk
- Data Science
- Computing
- Natural and Life Sciences
- Business and Operation

SKILLS

- Reasoning
- Evaluation
- Analysis
- Problem Solving

Examinations

Revision and Communication

- Show that...

Revision and Communication

- Transforming and constructing
- Listing and describing

Reasoning

- Multiplicative
- Geometric
- Algebraic

Assessment: Summative – End of Year 10 Exams
(Similarity, Developing Algebra, Geometry, Proportions and Proportional Change, Delving Into Data, Using Number (up to and inc. 'Types of Number and Sequences').)

Assessment: Year 11 Mock Examinations 2 (full spec.)

Assessment: Year 11 Mock Examinations 1 (Yr10 Content + Yr11 up to and inc. 'Gradients and Lines')

Proportions and Proportional Change

- Ratio and fractions
- Percentages and interest
- Probability

Delving into Data

- Collecting, representing and interpreting data

Using Number

- Non-calculator methods
- Types of number sequences

Using Number

- Indices and roots

YEAR 11

Expressions

- Indices and roots
- Manipulating Expressions

Graphs

- Gradients and lines
- Non-linear graphs
- Using graphs

Algebra

- Expanding and factorising
- Changing the subject
- Functions

Geometry

- Angles and bearings
- Working with circles
- Vectors

Developing Algebra

- Representing solutions of equations and inequalities
- Simultaneous equations

Similarity

- Congruence, similarity and enlargement
- Trigonometry

YEAR 10

Assessments: Low stakes mini-assessments are completed and fed-back at the end of each sub-block of study – every 6-10 lessons.

FLUENCY

- Quick and accurate recall of key facts
- Knowledge/selection of appropriate techniques/strategies



REASONING

- Applying logical thinking to a situation to derive the correct problem solving strategy
- The bridge between fluency and problem solving.



PROBLEM SOLVING

- Finding a way to apply knowledge and skills to answer unfamiliar types of problems.