Maths Curriculum Map

Maths Careers	
Engineer	Software engineer
Accountant	Statistician
Economist	Astronomer
Pharmacist	Investment analyst
Actuary	Meteorologist
Data analyst	Financial trader

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

YEAR 11

Revision | **Final Exam Preparation** | **Reasoning with Geometry** | **Algebraic Reasoning** | **Reasoning with Data** | **Reasoning with Proportion** | **Reasoning with Number** | **Reasoning with Proportion** | **Reasoning with Geometry** | **Probability and statistics**

- Plans and elevations
- Constructions, loci and bearings
- Volume and surface area
- Similarity and congruence
- Vectors
- Circle theormens
- Further trigonometry
- Geometric proof

- Quadratic and other graphs
- Quadratic equations
- Simultaneous equations
- Proof
- Area under graphs

- Tree diagrams
- And/Or rules

- Direct and inverse proportion
- Scale

- Simplify ratios
- Divide into a ratio
- Use direct and inverse proportion

- Manipulating expressions
- Sequences
- Forming and solving equations and inequalities
- Linear graphs

- Angle rules
- Pythagoras' theorem and trigonometry
- Perimeter and area
- Circles
- 3-D shapes
- Transformations

- Reciprocals
- Indices and standard form
- Surds
- Accuracy and bounds

- Construct and interpret graphs and charts
- Calculate averages and range
- Compare data sets
- Begin to use probabiltiy

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

YEAR 10

Algebraic Techniques | **Reasoning with Number** | **Revision** | **Representations and Revision** | **Reasoning with Proportion** | **Reasoning with Number** | **Reasoning with Geometry** | **Reasoning with Algebra**

- Operations including with directed number
- Multiples, factors and primes
- Laws of indices
- Fractions, decimals and percentages

- Probability
- Algebraic representation

- Deduction
- Rotation and translation
- Pythagoras' Theorem

- Three-dimensional shapes
- Constructions and congruency

- Straight line graphs
- Forming and solving equations
- Testing conjectures

- Enlargement and similarity
- Solving ratio & proportion problems
- Rates

- Numbers
- Using percentages
- Maths and money

- Angles in parallel lines and polygons
- Area of trapezia and circles
- Line symmetry and reflection

- Fractions and percentages
- Standard index form
- Number sense

- The data handling cycle
- Measures of location

- Working in the Cartesian plane
- Representing data Tables &
- Probability

YEAR 9

Reasoning with Data | **Developing Geometry** | **Developing Number** | **Algebraic techniques** | **Representations** | **Proportional Reasoning** | **Directed Number** | **Fractional thinking** | **Lines and Angles** | **Reasoning with Number** | **Applications of Number**

- Constructing, measuring and using geometric notation
- Developing geometric reasoning

- Developing number sense
- Sets and probability
- Prime numbers and proof

- Brackets, equations and inequalities
- Sequences
- Indices

- Operations and equations with directed number

- Addition and subtraction of fractions

- Working in the Cartesian plane
- Representing data
- Tables & Probability

- Place value and ordering integers and decimals
- Fraction, decimal and percentage equivalence

- Sequences
- Understand and use algebraic notation
- Equality and equivalence

- Solving problems with addition & subtraction
- Solving problems with multiplication and division
- Fractions & percentages of amounts

YEAR 7

Place Value and Proportion | **Algebraic Thinking**

The first term of year 7 focusses on developing understanding of the axioms and structures of number that are fundamental to mathematics. This underpins understanding of the algebraic notation developed in this term and in subsequent years.

"Mathematics has beauty and romance. It's not a boring place to be, the mathematical world. It's an extraordinary place; it's worth spending time there." **— Marcus du Sautoy, British mathematician**