Maths Curriculum Map

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



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

SINE LABE

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**

- Direct and inverse proportion
- Scale
- Tree diagrams
- And/Or rules
- Quadratic and other graphs
- Quadratic equations
- Simultaneous equations
- Proof
- Area under graphs
- Plans and elevations
- Constructions, loci and bearings
- Volume and surface area
- Simularity and congruence
- Vectors
- Circle theormens
- Further trigonometry
- Geometric proof
- Transformations
- Simplify ratios
- Divide into a ratio
- Use direct and inverse proportion
- Accuracy and bounds
- Multiplicative Reasoning
- Angle rules
- Pythagoras' theorem and trigonometry
- Perimeter and area
- Circles
- 3-D shapes
- Manipulating expressions
- Sequences
- Forming and solving equations and inequalities
- Linear graphs
- Construct and interpret graphs and charts
- Calculate averages and range
- Compare data sets
- Begin to use probabiltiy

YEAR 10

Algebraic Techniques | **Reasoning with Number** | **Revision** | **Representations and Revision** | **Proportional Reasoning** | **Reasoning with Proportion** | **Reasoning with Geometry** | **Reasoning with Number** | **Constructing in 2 and 3 Dimensions** | **Reasoning with Algebra**

- Operations including with directed number
- Multiples, factors and primes
- Laws of indices and standard form
- Fractions, decimals and percentages
- Reciprocals
- Surds
- Probability
- Algebraic representation
- Deduction
- Rotation and translation
- Pythagoras' Theorem
- 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
- Trigonometric ratios and how to apply them
- Fractions and percentages
- Standard index form
- Number sense
- Working in the Cartesian plane
- Representing data Tables &
- Probability
- Three-dimensional shapes
- Constructions and congruency
- Straight line graphs
- Forming and solving equations
- Testing conjectures
- The data handling cycle
- Measures of location

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

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**

- Developing number sense
- Sets and probability
- Prime numbers and proof
- Brackets, equations and inequalities
- Sequences
- Indices
- Constructing, measuring and using geometric notation
- Developing geometric reasoning
- Operations and equations with directed number
- Addition and subtraction of fractions

YEAR 8

- Place value and ordering integers and decimals
- Fraction, decimal and percentage equivalence
- Sequences
- Understand and use algebraic notation
- Equality and equivalence
- Working in the Cartesian plane
- Representing data
- Tables & Probability

YEAR 7

Place Value and Proportion | **Algebraic Thinking**

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

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**