Our Maths Learning Journey

$$\lim_{x\to 1}\frac{1}{(x-1)(x^2+x+1)}=\lim_{x\to 1}\frac{A}{x-1},$$

Employment

Higher Education

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A Level Further Maths
Pure – 75% (independent to regular Maths, running in parallel)
Applied – 25% (Decision, logic)

Mathematical Studies (Enrichment course)
Optional

A Level Maths
Pure – two thirds (Algebra, trigonometry, calculus)
Applied – one third (Stats & Mechanics)

Higher
Radii Vectors and geometric Proof, Proportions and Graphs.

Foundation
Fractions, Indices, Standard form, Similarity, Congruence, Vectors, Graphs of Cubic and Reciprocal functions, Simultaneous Equations, Rearranging formulae, Proof

Higher- Equations and Graphs Solving equations graphically, Representing inequalities graphically, Graphs of quadratic and cubic functions, Solving quadratic equations graphically.

Higher- Circle Theorems
Radii and cords, Tangents, Angles in circles, Applying circle theorems

Higher- More Algebra
Rearranging formulae, Simplifying Algebraic fractions, Solving Algebraic fraction equations, Surds, Functions and Proof.

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Higher- Further Statistics
Sampling, Cumulative frequency, Box plots and Histograms

Foundation- Multiplicative Reasoning
Percentages, Growth and decay, Compound measures, Distance speed and time, Direct and Inverse proportions.

Foundation- Constructions
Plans and Elevations, Accurate drawings, Constructions, Loci and Bearings.

Foundation-Quadratic Equations and Graphs
Expanding double brackets, Quadratic graphs, Factorising and solving quadratic equations.

Foundation-Perimeter, Area and Volume
Circumference of a circle, Area of a circle, Cylinders, Pyramids, Cones, Spheres and Composite shapes..

Foundation-Probability
Calculating probability, Experimental probability, Venn diagrams and Tree diagrams.

Foundation- Right Angled Triangle
Pythagoras' Theorem, Finding missing lengths and angles by using Trigonometry.

Foundation-Ratio and Proportion
Writing and using Ratio, Using Proportions , Proportion and Graphs.

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Higher- More Trigonometry
Accuracy, Graphs of Sine, Cosine and Tangent function, Sine and Cosine rule, Transforming Trigonometric graphs.

Higher- Similarity and Congruence
Congruence, Geometric proof and Similarity.

Higher- Multiplicative Reasoning
Growth and decay, Compound measures, Ratio and proportions.

Higher-Probability
Combine events, Mutually exclusive events, Experimental probability, Independent events &Tree diagrams, Conditional Probability and Venn diagrams.

Foundation-Transformations
Translation, Reflection, Rotation and Enlargement.

Higher- Equations and Inequalities
Solving quadratic equations, Completing the square, Linear & Quadratic Simultaneous Equations

Higher-Transformations and Constructions
Plan and Elevations of 3D solids, Reflection, Translation, Rotation, Enlargement, Bearings & Scale drawings, Constructions and Loci.

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Higher- Area & Volume
Circles, Sector of circles Cylinders, Spheres, Pyramids and Cones.

Foundation-Angles
Angles in parallel lines, Angles in triangles and Problem solving using Exterior and Interior angles.

Foundation-Averages & Range
Types of average, Estimating the mean and Sampling.

Foundation-Perimeter, Area and Volume
Rectangles, Parallelograms, Triangles, Trapeziums, Surface area 0f 3D solids and Volume of prisms.

Foundation-Graphs
Coordinates, Linear graphs, Gradient, Equation of a graph and Real life graphs

Higher-Graphs
Linear graphs, Rates of change, Real life graphs, Line segments, Quadratic, Cubic and Reciprocal graphs.

Foundation-Equations, Inequalities & Sequences
Solving equations including brackets and variables on both sides. Inequalities and finding the Nth term of a sequence.

Foundation-Fractions and Percentages
All the functions with fractions. Calculating percentages with and without calculators.

Foundation-Graphs, Tables & Charts
Representing data, Pie charts, Scatter diagrams, Time series, Two way tables and Lines of best fit.

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Higher-Angles & Trigonometry
Angle properties of triangles and quadrilaterals, Angles in Polygons, Pythagoras' theorem and Trigonometry.

Higher-Fractions Ratio and Percentages
All the functions with fractions, Ratio and Proportions, Recurring Decimals and Percentages

Higher-Graphs, Tables & Charts
Representing data, Pie charts, Scatter diagrams, Time series, Two way tables, Lines of best fit and Averages.

Higher-Algebra
Algebraic indices, Expanding and Factorising, Equations, Formulae ,Linear and Non-linear Sequences and Factorising Quadratics

Sequences and Straight line Graphs
Patterns, Direct proportions, Gradients and Equations of straight lines

Area and Volume
Area of Triangles and quadrilaterals, Volume and Surface area of prisms

Real life graphs
Conversions, Distance-Time and Curved graphs

Higher-Number
Number problems, Estimating, HCF&LCM, Fractional & Negative Indices and Surds.

Angles and Shapes
Calculating angles in triangles and Quadrilaterals, Alternate angles and proof, Exterior and Interior angles. Solving geometric problems.

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Foundation-Algebra
Simplifying, Substituting, using Expressions and Formulae, Expanding and Factorising.

Probability
The language and calculating probabilities

Ratio
Ratio and Proportion with Decimals, Fractions and Percentages

Transformations
Reflections, Rotations, Enlargements and Translations

Number Skills
BIDMAS, Money, Time, Negative Numbers, Powers, Roots and Divisibility

Foundation-Number
Calculations, Decimals, Index notation, Factors & Multiples, Prime factorisation, Squares, Cubes & Roots.

Fractions & Percentages
Converting fluently between Fractions, Decimals and Percentages

KS3

Decimals & Measure
Ordering and Rounding decimals, Place value calculations, Length, Mass, Capacity, Scales, Perimeter & Area

Algebraic Skills
Writing expressions, Simplifying, Substituting into formulae, Expanding and Factorising, Solving one and two steps equations

Statistics
Analysing and displaying data, Averages, Pie charts, Tables, Stem and leaf diagrams, Scatter graphs

Welcome to GCSE Maths!