THA Maths Learning Journey

YEAR 11

- Sequences (1, 1, 2, 3, 5…)
- Area Under a Curve
- Iteration (x_{n+1})
- Estimating Gradients
- Graph Transformations
- Interpreting Graphs
- Repeated Percentage Change (%)
- Vectors
- Transformations
- Histograms
- Displaying Data
- Pythagoras ($a^2 + b^2 = c^2$)
- Angles in Parallel Line, Interior and Exterior Angles
- Circles and Sectors
- Circle Theorems
- Loci
- Construction
- Cumulative Frequency Diagrams
- Scatter Diagrams
- Interpreting Data and Diagrams
- Trigonometry
- Congruence
- Similarity
- Perimeter and Area
- Graphical Solutions to Equations and Inequalities
- Expressions and Identities
- Manipulate Expressions
- Simultaneous Equations (x y)
- Indices (a^n)
- Parallel and Perpendicular Lines
- Equations of Tangents
- Volume and Surface Area
- Conditional Probability
- Manipulate Expressions
- Quadratics (x^2)
- Inequalities ($<$ $\leq$ $>$ $\geq$)
- Standard Form ($a \times 10^n$)
- Surds ($\sqrt{\ }$)
- Function ($f(x)$)
- Proof ($\equiv$)
- Types of Graph

YEAR 10

- Relative Frequency
- Two Way Tables
- Direct and Indirect Proportion
- Linking Fractions, Ratio and Proportion
- HCF and LCM
- Prime Factors
- Problem solving with Number
- Standard Form ($a \times 10^n$)
- Independent Events
- Venn Diagrams
- Tree Diagrams
- Basic Probability
- Ratio Problems
- Operations with Fractions and Decimals
- Recurring Decimals
- Product Rule for Counting
- Area and Volume of Similar Shapes
- Right Angles Trigonometry
- Similar Shapes
- Linear Simultaneous Equations
- Index Notation (a^n)
- Plotting Quadratics
- Single and Combined Events
- Sample Spaces
- Constructions
- Loci
- Percentage Change (%)
- 3D Nets and Surface Area
- Expanding Quadratics
- Theoretical and Experimental Probability.
- Venn Diagrams
- Two Way Tables
- Congruence
- Pythagoras' Theorem ($a^2 + b^2 = c^2$)
- Simple Interest
- Problem solving with Ratio and Proportion
- Area and Volume
- Angles in parallel Lines
- Scatter Graphs
- Median
- Mean
- Proportion
- Ratio Notation (1:2)
- Scales and Maps
- Representing and Solving Inequalities
- Forming and Solving Equations (=)
- Reasoning with angles
- Exterior and Interior Angles
- Range
- Mode
- Graphs
- Fractions and Ratio
- Rates of Change
- Linear Graphs and Parallel Lines
- Bounds ($\leq x <$)
- Estimation
- Rounding (← 5 →)

YEAR 9

- Decimals (0.5)
- FDP ($\frac{1}{2}$ 0.5 50%)
- Percentages (%)
- Substitution
- Sequences (3, 5, 7…)
- Transformations
- Fractions and Ratio (1:2 $\frac{1}{3}$)
- Properties of Angles
- Fractions ($\frac{1}{2}$)
- Prime Factor Decomposition
- Functions
- Area of 2D Shapes
- Ratio Notation (1:2)
- Sharing in a Ratio
- Metric Conversions
- Time
- Solving Simple Equations ($x + 2 = 7$)
- Algebraic Notation
- Rounding and Estimating (← 5 →)
- Types of Number
- Basic Number (+ − × ÷)
- Construction of 2D Shapes
- 2D and 3D Shapes
- Simplifying Expressions (x x^2)
- Directed Numbers (−)
- Order of Operations ( ) n^2 × ÷ + −
- Powers and Roots (n^2 $\sqrt{\ }$)

YEAR 7

Welcome

"Mathematics is, in its way, the poetry of logical ideas." – **Albert Einstein**

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