

Curriculum - Long Term Plan

What will they be learning, why and in what order?			
Maths Year 11	Term 1	Term 2	Term 3
Bridge/ Foundation knowledge required	Cartesian Plane Year 8 Sequences Year 7 Straight Line Graphs Year 9 Indices and routes Year 10 Indices Year 8 Decimals Years 4-6 Indices Year 8 Solving Problems with Multiplication and Division Year 7 Standard Index Form Year 8 Place Value Year 6 Multiplication and Division Year 6 Converting Units Years 5 and 6 Straight Line Graphs Year 9 Cartesian Plane Year 8 Manipulating expressions Year 10 Brackets, equations and inequalities Year 8 Operations and equations with directed number Year 7 Algebra Year 6 Understand and use algebraic notation Year 7 Algebra Year 6	Multiplicative Change Year 8 Solving Problems with Multiplication and Division Year 7 Developing number sense Year 7 Number sense Year 8 Addition and Subtraction Years 2-6 Multiplication and Division Years 2-6 Place Value Year 5 Angles and bearings Year 10 Deduction Year 9 Angles in parallel lines and polygons Year 8 Properties of shape Year 5 and 6 Position and Direction Year 6 Constructing, measuring and using geometric notation Year 7 Algebra Year 6 Understand and use algebraic notation Year 7 Forming and solving equations Year 9 Testing conjectures Year 9 Multiplication and Division Year 4 and 5 Place Value Years 4-6 Position and direction Years 4-6 Working in the cartesian plane Year 8 Rotation and translation Year 9	EXAM PERIOD

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	Understand and use algebraic notation Year 7 Manipulating expressions Year 10 Brackets, equations and inequalities Year 8 Forming and solving equations Year 9 Algebraic notation Year 7 Pythagoras' theorem Year 9 Multiplication and Division Year 3-6 Indices and routes Year 10 Indices Year 8	Solve problems with multiplication and division Year 7 Multiplication and Division Year 4 and 5 Properties of shape Years 5 and 6 Enlargement and similarity Year 9 Properties of Shape Year 6 Constructing, measuring and using geometric notation Year 7 Constructions and congruency Year 9 Statistics Years 2-6 Sets and probability Year 7 Tables and probability Year 8 Probability Year 9 Probability Year 10 Review Blocks: Multiplicative Reasoning Year 11 Geometric Reasoning Year 11 Algebraic Reasoning Year 11	
Key Learning Experience / Skills	Students to close gaps and extend knowledge on: Properties of Number Indices FDP conversions 4 operations with decimals and fractions Equations & inequalities Sequences Probability Ratio	Students to close gaps and extend knowledge on: Brackets and factorising Standard form Rearranging Percentages and interest Angles in parallel lines and polygons Charts and diagrams Graphing functions Averaged and spread Transformations	Revision and past papers



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	Compound measure Rounding and approximation Area & volume 3D shapes	Pythagoras	
Assessment How will you assess the impact of teaching?	Demonstrate, Consolidate and Extend Green tickets Book Inserts Regular low stakes assessment Mock papers	Demonstrate, Consolidate and Extend Green tickets Book Inserts Low stakes assessment Mock papers	
CIAG Links	Gradients and Lines: Key in engineering, architecture, and design for calculating slopes and angles in construction and planning. Non-linear Graphs: Used in data science, economics, and biology to model complex systems like population growth or market trends. Using Graphs: Important in finance, business, and research for visualizing data, spotting trends, and making informed decisions. Expanding and Factorising: Crucial in software development and cryptography for simplifying and solving complex equations. Changing the Subject: Essential in physics, chemistry, and engineering for rearranging formulas to solve for unknown variables. Functions: Central to computing, electronics, and economics for	Multiplicative Reasoning: Essential in finance and economics for understanding proportions, percentages, and growth rates in business and budgeting. Geometric Reasoning: Key in architecture, engineering, and art for designing structures, spaces, and objects using spatial awareness and shapes. Algebraic Reasoning: Important in fields like computer science and physics for solving problems and modelling real-world systems with equations. Transforming and Constructing: Crucial in design, animation, and engineering for manipulating shapes and structures in 2D and 3D spaces. Listing and Describing: Used in logic, computer programming, and decision-making processes to organize, categorize, and plan systematically. Show That: Vital in fields like mathematics, law, and science for proving concepts, theories, or hypotheses with logical reasoning and evidence.	



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	modelling relationships and predicting outcomes.		
British Values	Democracy: Students vote on which graph type to use for a data presentation. Respect: Students listen to and respect different methods for solving equations. Tolerance: Lessons include mathematical contributions from diverse cultures. Liberty: Students choose their preferred method for solving problems. Rule of Law: Clear rules, like angle laws, are followed in geometry proofs.		
Cross Curricular Link Numeracy	Science: Analyse complex scientific data sets. Geography: Dive deep into spatial analysis. History: Perform advanced historical data analysis. Design and Technology: Manage complex projects with limited resources. English: Use numeracy for critical analysis and essay writing. Art and Design: Explore intricate numerical patterns in artistic compositions. PE: Apply advanced numeracy skills for sports performance analysis.	Cross Curricular Link- Literacy	Writing clear, structured explanations for solving complex mathematical problems. Using advanced mathematical language in extended essays and reports. Interpreting and critically evaluating data in texts, articles, and case studies. Constructing logical, well-supported arguments in both written and spoken formats. Summarizing and explaining mathematical trends and findings in written reports.
<i>The Hub Vision – A School that provides all students with exciting opportunities that build confidence, develop social skills and promote academic achievement</i>			