HARLINGTON SCHOOL

Maths Working Above - Curriculum Learning Journey

Knowledge & Concepts increase students depth/ challenge and build on previous learning where topics are revisted throughout their learning journey ➤

		Year 7	Year 8	Year 9 Crossover Year 1	Year 10 Crossover Year 2	Year 11 Working Above	Year 12	Year 13
Half Term 1	Topics	Algebraic Thinking	Fractional Thinking Lines and Angles	Statistics Number	Algebra Geometry	Geometry and Measure Number Algebra MOCK Exam 1	Algebra Geometry Statistics & Probability	Algebra Geometry Shapes & Space
	Knowledge	Sequences Understand and use algebraic notation Equality and Equivalence	Addition and subtraction of fractions Constructing, measuring and using geometric notation	Two-way Tables Frequency Trees Venn Diagrams Using a Calculator Rounding and Error interval Estimation Multiples and Factors	Straight line Graphs Quadratic and Cubic Graphs Coordinate geometry	Circle Geometry Recurring Fractions Fractional Indices Product Rule Expand and Factorising Rearranging Equations Revision for MOCK	Algebra: Baseline Test Logarithms Quadratics Equations & inequalities Coordinate Geometry Sampling Data Representation Measures of Location Measures of Spread	Algebraic Methods Functions & Graphs Sequences & Series Binomial Expansion Radians Trigonometric Functions
Half Term 2	Topics	Place Value and Proportion Applications Of Number	Reasoning with Number	Number	Compound Measurements Algebra Ratio Geometry and Measure	Algebra Statistic MOCK Exam 2	Geometry Statistics & Probability Calculus	Problem Solving: modelling Calculus Geometry Shapes & Space
	Knowledge	Place value and ordering integers and decimals Fraction, decimal and percentage equivalence Solving problems with addition and subtraction	Develop geometric reasoning Developing number sense Sets and probability	Prime factor Decomposition Fractions Percentage of Amounts Interest Growth and Decay Reverse Percentage	Speed/Distance/Time & Compound measures Real Life Graphs Ratio Recipes: Exchange Rate Best Value	Sequences Coordinate Geometry Algebraic Fractions Functions Cumulative Frequency	Circle Geometry Graphical transformation Probability Binomial Distribution Hypothesis Testing	Trigonometry (modelling) Parametric equations Differentiation Numerical Methods

					Pythagoras & Trigonometry	Box Plots Histograms	Differentiation	
Half Term 3	Topics	Applications Of Number Directed Numbers	Reasoning with Number Proportional Reasoning	Number Algebra	Geometry and Measure	Gap Analysis form MOCK Ratio Algebra Geometry and Measure	Calculus Algebra Mechanics	Calculus (2) Shapes & Space Problem Solving
	Knowledge	Solving problems with addition and subtraction (MYA Assessment) Solving problems with multiplication and division Fractions and percentages of amounts Directed numbers	Prime numbers and proof (MYA Assesment) Ratio and scale Multiplicative change	Index Law Standard Form Sequences Expanding and Simplifying MYA Assessment	Plans and Elevations Constructions Circles, Arcs and Sectors	Direct and Inversely Proportion Transformations Quadratic Formula and Iteration 3D Trigonometry and Pythagoras Vectors	Integration Algebra Binomial Expansion Modelling in mechanics Constant acceleration Force and motion	Mock Exam 1: Gap Analysis Integration Vectors Mathematical modelling
Half Term 4	Topics	Directed Numbers Fractional Thinking Lines and Angles	Proportional Reasoning Representations	Algebra	Geometry and Measure	Geometry and Measure	Trigonometry Mechanics Mathematical modelling	Statistics & Probability Mechanics
	Knowledge	Operations and equations with directed numbers Addition and subtraction of fractions Constructing, measuring and using geometric notation	Multiplying and dividing fractions Working in the cartesian plane Representing Data	Factorisation Solving Equations Subject of Simultaneous Equations	Surface Area and Volume Similarity and Congruence Transformations	Volume and Surface Area	Trigonometry Kinematics Constant Acceleration Force & Motion Variable Acceleration Mathematical Proof Vectors	Regression Correlation Moments Conditional probability Force & friction Projectiles Normal distribution Variable acceleration Vectors in projectiles
	Topics	Lines and Angles Reasoning with Number	Representations Algebraic Techniques	Algebra Geometry and Measure	Geometry Statistics	Gap analyses	Mechanics Statistics & Probability	Mechanics Statistics & Probability

Half Term 5	Knowledge	Constructing, measuring and using geometric notation Develop geometric reasoning Developing number sense	Representing Data Tables and probability Brackets, equations and identities	Inequalities Alternate and Corresponding Angles Bearings	Transformations Vectors Averages	Consolidation: topics from MOCK	Easter Assessment Logarithms Conditional Probability (A2) Vectors	Easter Mock Exam: Gap Analysis Past Papers
Half Term 6	Topics	Reasoning with Number	Algebraic Techniques Developing Number	End Of Year Exams and GAP analysis	Statistics Probability		Gap Analysis End of Year Exam Preparation Scholarship Research Tasks	Gap Analysis
	Knowledge	Developing number sense (EOY Assessment) Sets and probability Developing number sense Developing number sense	Sequences Indices Fraction and percentages	Interior and Exterior Angles EOY assessment	Averages from a Table Frequency Diagrams Scatter graphs Tree Diagrams Statistics and Sampling		Pure Maths Unit (review) Statistics & Prob (review) Mechanics Unit (review) Partial Fractions (A2) Functions (A2)	Individual Consultations A Level Maths Exams