BOURNVILLE SCHOOL

Curriculum Overview 2020-2021 Subject: Mathematics

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Content	*Content*	*Content*	*Content*	*Content*	*Content*
Year 11 (F)	Expanding double brackets Plotting quadratic graphs Factorising and solving quadratics Area and circumference of circles Volume Fraction calculations Index Laws	Standard form Similarity Congruence Vectors Non-Linear graphs Simultaneous equations Rearranging formulae Proof	QLA Review and Revise	QLA Review and Revise		
Year 11 (H)	Circle theorems Rearranging formulae Algebraic fractions Surds Functions Proof	Vectors Geometric problems Direct and inverse proportion Exponential functions Non-Linear graphs Transforming graphs	QLA Review and Revise	QLA Review and Revise		
Year 10 (F)	Calculations Factors and multiples Index Notation Expressions Substitution Tables, charts and graphs	Pie charts Scatter graphs Fractions, decimals and percentages Percentage calculations Linear equations	Linear inequalities Linear sequences Properties of shape Interior and exterior angles Statistics, sampling and averages	Perimeter and area of 2D shapes Volume Real life graphs Straight line graphs Transformations	Transformations Ratio Direct proportion Pythagoras' theorem Trigonometry	Probability Multiplicative reasoning Plans and elevations Constructions
Year 10 (H)	Calculations Indices and roots Types of number Rearranging formula Solving equations Sequences Averages and range	Representing and interpreting data Scatter graphs Fractions, decimals and percentages Percentage calculations Polygons, angles and parallel lines Pythagoras' theorem	Trigonometry Real life graphs Linear graphs Quadratic, cubic and other graphs Perimeter and area of 2D shapes Volumes of cylinders, cones, and spheres Transformations Bearings and scale drawings ConstructionsLoci	Quadratic equations Completing the square Simultaneous equations Linear inequalities Probability Venn diagrams and set notation	Growth and decay Compound measures Ratio and proportion Congruence Similarity Trigonometric graphs Transforming trigonometric graphs	Area of non-right angled triangles Sine rule Cosine rule Sampling and populations Cumulative frequency and box plots Histograms

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Year 9	Unit conversions Index Laws Standard Form Bounds Inequalities Direct proportion	Inverse proportion Compound units Drawing graphs Equation of a line	Real life graphs Angles in polygons Similarity and congruence Pythagoras' theorem	Trigonometry Venn Diagrams Two-way tables Tree diagrams	Factorising quadratics Quadratic sequences	Frequency tables Stem and Leaf Scatter graphs Project
Year 8	Decimal calculations FDP Percentages Ratio – Simplifying Ratio - sharing	Expressions and equivalence Substitution Expanding pairs of brackets Factorisation – common factors Linear equations	Rearranging formulae Linear equations – unknowns on both sides Constructing equations Angles in parallel lines	Bearings Scale conversions Percentage change Simple interest	Probability Circumference Area of circles Properties of 3D shapes	Volume of shapes Plans and elevations Constructions Project
Year 7	Place Value Rounding and Estimating Calculations Metric Units	Types of number Factors, multiples, and primes Introduction to algebra Expanding single brackets Functions	Properties of shape Angles – drawing/measuring Angles – around a point/line/vertically opposite Angles – shapes Equivalent fractions	Fraction calculations Area and perimeter of quadrilaterals Sequences	Linear sequences Mathematical movement Straight line graphs Measuring data	Presentation of data Construction Project