## MATHS CURRICULUM

Term		Year 7	Year 8	Year 9	Year 10	Year 11
1	September - October	Factors and highest common factors (HCF); Multiples and lowest common multiples (LCM); Prime factors; Sequences and rules; Using the nth term to generate sequences; Finding the nth term of a sequence; Area of rectangles, triangles, paralleograms, trapeziums & compound shapes	Percentage increases and decreases; Recognise/draw the graph of a linear equation; Enlarging shapes; Scatter graphs and correlation	Higher: Multiples, factors and primes; calculating with fractions; percentage of amounts Foundation: Place value; BIDMAS; units of measurements	Higher: Area and volume of similar shapes; rules of indices; standard form Foundation: Perimeter and area of shapes, compound shapes, compound shapes; trapeziums; circumference of a circle; area of a circle	<b>Higher:</b> Negative/fractional powers; surds; bounds <b>Foundation:</b> Percentages; sampling; pie charts
	November - December	Averages (mode, mean, median) & range; Statistical Diagrams Equivalent Fractions; Fractions (add/subtract/multiply/divide); Adding and subtracting mixed numbers BIDMAS; Expressions and substitutions; Simplifying expressions	Expanding Brackets; Adding and subtracting fractions; Formula for the circumference of a circle; Formula for area of a circle; Personal Finance Level 1	Higher: Averages Sequences Ratios and Proportions Foundation: Averages (mean/median/mode) Calculating the Range Angles around points Angles on straight lines & parallel lines Multiples, Factors and Primes	Higher: Calculating Probabilities Mutually Exclusive/Exhaustive Events Two Way Tables Venn Diagrams Foundation: Representing Vectors Adding and subtracting Vectors	Higher: Factorising quadratics Solving quadratics by completing the square Solving quadratics by plotting the graph Solving quadratics using the formula Solving simultaneous equations (linear & quadratic) Foundation Construction Volume of 3D shapes

2	January - February	Angles in a triangles and quadrilaterals Angles formed by parallel lines Constructions Rounding numbers Estimating answers Calcualting with decimals Coordinates Linear graphs	Equations with and without brackets Rearranging formulae Distance–time graphs Direct proportion	Higher: Compound measures Angles in polygons Scale drawings and Bearings Foundation: Use of calculator Rounding Multiplying and dividing decimal numbers	Higher: Solving linear equations Solving simultaneous equations by substitution Solving simultaneous equations by elimination Foundation: Rotational symmetry for 2D shapes Transformation <i>Refelections/ Translation</i> <i>/Rotation/Enlargement</i>	Higher: Probability - <i>Tree Diagrams</i> Probability - <i>Dependent/Indepednent</i> Circle Theorems Direct/Indirect Proportions Foundation: Pythagoras Thereom Trigonometry Sequences
	March - April	Fractions, decimals & percentages Fractions of a quantity Percentages of quantities Percentages with a calculator Using net to construct 3D shapes Cuboid (Volume and Surface area )	Angles in polygons Make accurate geometric constructions. Factorising algebraic expressions Comparing Data	Higher: Transformation <i>Refelections/ Translation</i> <i>/Rotation/Enlargement</i> Factorising Quadratics Rearranging Equations Foundation: Fractions - add, subtract, multiply, divide Straight line graphs	Higher: Representing Inequalities on the number Line Solving simple linear inequalities Graphical inequalities Foundation: Calculating probabilities Systematic listing and counting Mutually exclusive and exhaustive outcomes	Higher: Velocity time graphs Basic trigonometry Sine/Cosine Rule Foundation Congruent & similar shapes Probability (Two-way tables) Probability (Venn diagrams) Indices
3	May - June	Ratios (simplifying and sharing ) Application of ratio in real life Symmetry(reflection and rotation) Properties of 2 D shapes Solving equations (finding unknown numbers) Solving more complex equations Setting up and solving equations	Volume and surface area of prisms Understand and use formula for calculating speed and density Understand and use of pythagoras' theorem	Higher: Circumference and area of circles Area of volume of shapes Straight line graphs Foundation: Substitution Expanding and simplifying single brackets Expanding and simplifying doube brackets Factorising simple and quadratic expressions	Higher: Calculating and manipulating surds Rationalising the denominator Error interval Limits of accruacy Surds Foundation: Volume & surface area of prisms Volume and surface area of a cylinder Solving linear equations	Higher Algebraic fractions Changing subject of formulae Functions Iteratative process Vectors Foundation: Standard form Simultaneous equations (linear) Distance/velocity-time graphs Quadratics; plotting, factorising and solving

Additional reading Collins KS3 Maths Now: Learn and Practice Book Collins KS3 Math Now- Learn and Practice Book Collins Edexcel GCSE Maths Higher Collins Edexcel GCSE Maths Foundation Collins Edexcel GCSE Maths Foundation Colling Edexcel GCSE Maths Foundation Colling Edexcel GCSE Maths Foundation Colling Edexcel GCSE Maths Higher Colling Edexcel GCSE Maths Foundation Pearson Statistics Student Book 9-1		June - July	Short/long multiplication and division Pie Chart ( interpreting and drawing ) Rounding Standard form	Rounding to significant figures Rounding to decimal places Expanding and simplifying two brackets Understand and work with standard form Using positive and negative powers of ten	Higher: Equations of parallel and perpendicular lines Pythagoras theorem Trigonometry (SOHCAHTOA) Foundation: Rearranging equations Ratio (simplify, share) Direct proportion problems	Higher: Quadratic equations Factorising & solving Plotting quadratic graphs Foundation: Ration and proportion Compound measures Percentage increase and decrease Compound interest and repeated percentages		
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