YEAR 7 CURRICULUM SUMMARY

SUBJECT: Mathematics

When?	Chapter	Key Learning Objectives Key Questions	Unit assessment
HALF TERM 1	**CH 1: Working with numbers**	**Chapter 1: Numbers** • how to multiply and divide negative numbers • to understand and use highest common factors • to understand and use lowest common multiples • to understand powers and roots • to find the prime factors of an integer	**EOC 1 Test** covering • Times and divide negative numbers • HCF • LCM • Powers and roots • Prime factors
	CH 2: Geometry	**Chapter 2: Geometry** • how to calculate angles in parallel lines • to know the geometric properties of quadrilaterals • to understand how to translate a shape • to enlarge a 2D shape by a scale factor • to construct the midpoint and the perpendicular bisector of a line • to construct an angle bisector • to construct a perpendicular to a line from a point • to construct a right angles triangle	**EOC 2 Test** covering • Angles in parallel lines • Quadrilaterals • Translations & enlargements • Constructing triangles

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HALF TERM 2	**CH 3: Probability**	**Chapter 3 : Probability** • to understand mutually exclusive and exhaustive outcomes • use sample spaces to calculate probabilities • use relative frequency to estimate probabilities	**EOC 3 Test** covering • Mutually exclusive outcomes and exhaustive outcomes • sample space • Estimated of probability
	CH 4: Percentages	**Chapter 4: Percentages** • to write one quantity as a percentage of another • to use a multiplier to calculate a percentage change • to work out a change in value as a percentage increase or decrease	**EOC 4 Test** covering • Find a percentage of a number • Percentage increase and decrease • Percentage change
	CH 5: Congruent Shape	**Chapter 5: Congruent shapes** • recognise congruent shapes • know the conditions for recognising congruent triangles • solve geometrical problems using congruent triangles	**EOC 5 Test** covering • Congruent triangles

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HALF TERM 3	**CH 6: Surface Area and Volume of Prisms** **CH 7: Graphs** **CH 8: Number** **CH 9: Interpreting data**	**Chapter 6: Surface area and volume of prisms** • convert metric units for area and volume • calculate the surface area of a prism • calculate the volume of a prism **Chapter 7: Graphs** • how to work out the gradient of a linear graph • how to work out an equation of the form $y = mx + c$ from its graph • how to draw graphs of quadratic equations • how to solve a quadratic equation from a graph • how to draw graphs to illustrate real life situations **Chapter 8: Number** • how to multiply and divide by negative powers of 10 • how to round numbers to a specific number of significant figures • how to write large numbers in standard form • how to multiply numbers in standard form. **Chapter 9: Interpreting Data**	**EOC 6 Test** covering • Surface area of prisms • Volume of prisms **EOC 7 Test** covering • Draw y = mx + c • Gradient, m • Draw a quadratic • Real life graphs **EOC 8 Test** covering • Powers of 10 • Significant figures • Standard form • Multiplying with numbers in standard form

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HALF TERM 4	**CH 10: Algebra**	• how to interpret statistical diagrams • how to construct pie charts relative to total frequency • how to construct scatter graphs • how to draw and use lines of best fit • how to understand correlation	**EOC 9 Test** covering • Pie charts • Scatter graphs • correlation
		Chapter 10: Algebra • how to write and simplify expressions involving all four operations • how to simplify expressions that have a number of terms • how to multiply out brackets in algebraic expressions • how to identify equivalent expressions • how to write algebraic expression involving powers	**EOC 10 Test** covering • like terms • expand brackets • use powers
	CH 11: Shape and ratio	**Chapter 11: Shape and Ratio** • how to use ratio to compare lengths, areas and volumes of 2D and 3D shapes • how to enlarge a shape by a fractional	**EOC 11 Test** covering • ratio of length, area, volume • fractional enlargement • map scales

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HALF TERM 5	**CH 12: Fractions and decimals**	scale factor • how to use map scales **Chapter 12: Fractions and Decimals** • how to multiply fractions and integers • how to divide with fractions and integers • how to multiply large and small decimal numbers • how to divide large and small decimal numbers	**EOC 12 Test** covering • add, subtract, times, divide fractions • long multiplication & division
HALF TERM 6	**CH 13: Proportion**	**Chapter 13: Proportion** • how to solve problems involving direct proportion • graphical and algebraic representations of direct proportion • how to solve problems involving inverse proportion • graphical and algebraic representations of inverse proportion	**EOC 13 Test** covering • direct proportion • inverse proportion
	CH 14: Circles	**Chapter 14: Circles**	**EOC 14 Test** covering

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	CH 15: Equations and Formulae **CH 16: Comparing data**	• the names of the parts of a circle • how to calculate the circumference of a circle • how to calculate the area of a circle **Chapter 15: Equations and Formulae** • how to solve equations involving brackets and fractions • how to solve equations where the variable occurs more than once • how to rearrange formulae **Chapter 16: Comparing Data** • how to construct grouped frequency tables for data • how to interpret and draw grouped frequency diagrams • how to compare two distributions by using an average and the range • how to select the correct average when analysing data	• area and circumference of a circle **EOC 15 Test** covering • solve equations with brackets • equations with the variable on both sides • rearrange formulae **EOC 16 Test** covering • Grouped frequency tables • Draw frequency diagrams • Comparing sets of data • Misleading charts