Year 7 set 3 Maths Learning Journey

When?	Chapter	Key Learning Objectives / Key Questions	Unit Assessments (End of Chapter Tests)
HALF TERM 1	**CH 1: Working with numbers**	• multiply and divide negative numbers • find the highest common factor and the lowest common multiple of sets of numbers • use powers and find roots • how to find the prime factors of a number	**EOC 1 Test** covering • Times and divide negative numbers • HCF • LCM • Powers and roots • Prime factors
	CH 2: Geometry	• how to identify alternate and corresponding angles • how to classify quadrilaterals according to their geometrical properties • how to rotate a shape • how to translate a shape • how to construct perpendicular lines and angle bisectors	**EOC 2 Test** covering • Angles in parallel lines • Quadrilaterals • Translations & enlargements & rotations • Constructing triangles
HALF TERM 2	**CH 3: Probability**	• how to work with a probability scale • how to recognise mutually exclusive and non-exclusive outcomes and events • how to work out probabilities, using sample spaces and Venn diagrams where necessary • how to use experimental probability to make predictions	**EOC 3 Test** covering • Mutually exclusive outcomes and exhaustive outcomes • sample space • Estimated of probability
	CH 4: Percentages	• how to write one value as a percentage of	**EOC 4 Test** covering • Find a percentage of a number

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		another value • how to use a multiplier to calculate a percentage increase or decrease • how to write a change of value as a percentage increase or decrease • how to use percentages to compare two quantities	• Percentage increase and decrease • Percentage change
	CH 5: Sequences	**Chapter 5: Sequences** • how to use flow diagrams to generate sequences • how to use the nth term for sequences • how to work out the nth term of a sequence • how to use the special sequence of Fibonacci numbers	**EOC 5 Test** covering • Flow diagrams • Nth term of a sequence • Fibonacci
	CH 6: Area of 2D and 3D shapes	• how to work out the areas of triangles, parallelograms and trapezia • how to work out the areas of compound shapes • how to work out the surface areas of cuboids	**EOC 6 Test** covering • Area of a triangle, parallelogram, trapezium • Surface areas of cubes and cuboids
HALF TERM 3	**CH 7: Graphs**	• how to draw graphs of linear equations • 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 simple quadratic equations • how to draw graphs to illustrate real-life situations	**EOC 7 Test** covering • Draw $y = mx + c$ • Gradient, m • Draw a quadratic • Real life graphs
	CH 8: Number	• how to multiply and divide by powers of 10 • how to round numbers to a specific number of	**EOC 8 Test** covering • Powers of 10

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		significant figures • how to write large numbers in standard form • how to multiply numbers in standard form	• Significant figures • Standard form • Multiplying with numbers in standard form
HALF TERM 4	**CH 9: Interpreting data**	• how to interpret pie charts by the angle size of each sector • how to use the scaling method to construct pie charts • how to use scatter graphs • how to construct scatter graphs	**EOC 9 Test** covering • Pie charts • Scatter graphs • correlation
	CH 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
HALF TERM 5	**CH 11: Congruence and Scaling**	• how to recognise congruent shapes • how to enlarge a shape by a scale factor • how to use shape and ratio • how to use scales in drawings and maps	**EOC 11 Test** covering • congruent shapes • ratio of length, area, volume • fractional enlargement • map scales
	CH 12: Fractions and decimals	• how to multiply fractions and integers • how to divide fractions and integers • how multiply large and small numbers	**EOC 12 Test** covering • add, subtract, times, divide fractions

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HALF TERM 6		• how to divide large and small numbers	• long multiplication & division
	CH 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	• the names of the parts of a circle • how to calculate the circumference of a circle • how to calculate the area of a circle	**EOC 14 Test** covering • area and circumference of a circle • labels eg radius,
	CH 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	**EOC 15 Test** covering • solve equations with brackets • equations with the variable on both sides • rearrange formulae
	CH 16: Comparing data	• how to construct grouped frequency tables for data • how to interpret and draw grouped frequency diagrams	**EOC 16 Test** covering • Grouped frequency tables

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		• how to compare two distributions by using an average and the range • how to select the correct average when analysing data	• Draw frequency diagrams • Comparing sets of data • Which average is best