

Year 8 Curriculum			
Term	Term 1	Term 2	Term 3
Topics	Multiplying & dividing fractions Ratio & Scale Multiplicative Change Brackets, equations and inequalities Sequences	Linear Graphs Representing data Indices Fractions & Percentages Standard Index Form Number Sense	Angles on Parallel Lines Area of 2D Shapes Transformations Data Handling Cycle Averages & Range
Essential knowledge, skills and understanding	<ul style="list-style-type: none"> • Represent multiplication of fractions & multiply a fraction by an integer • Understand the reciprocal • Multiply and divide fractions including mixed numbers • Understand and use ratio • Solve problems involving ratios of the form 1:n or n:1. • Solve proportional problems involving the ratio m:n • Divide a value into a given ratio • Express ratios in their simplest integer form including different units of measure • Compare ratios and related fractions • Express ratios in the form 1:n • Solve problems with ratio including comparing ratio and combining ratio • Solve problems involving direct proportion. • Explore conversion graphs. • Convert between currencies • Explore direct proportion graphs • Explore relationships between similar shapes 	<ul style="list-style-type: none"> • Work with coordinates in 4 quadrants finding midpoints and endpoints between coordinates • Recognise and plot straight line graphs from equations. • Explore the gradient of the line and know what it means. • Explore and understand the equation of a line • Plot simultaneous equations. Solve them given 2 lines. • Plot reciprocal and piece wise graphs. • Draw and interpret scatter graphs, correlation and lines of best fit. • Identify outliers • Identify non-linear relationships • Identify types of data • Read and interpret frequency tables • Represent grouped discrete data • Represent continuous data grouped into equal classes • Represent data in two-way tables • Adding and subtracting expressions with indices • Simplifying algebraic expressions by multiplying indices • Simplifying algebraic expressions by dividing indices 	<ul style="list-style-type: none"> • Use order of operations • Solve problems involving money • Convert units of measure including length, weight and capacity • Calculate angles between parallel lines and the transversal • Construct triangles • Construct special quadrilaterals • Construct perpendicular bisector • Calculate with sides and angles in special quadrilaterals • Calculate area of rectilinear shapes • Calculate area of a trapezia • Calculate circumference of a circle • Calculate area of a circle and parts of circles • Calculate perimeter and area of compound shapes including circles • Work backwards from the area of all shapes including circles • Recognise line symmetry. • Reflect a shape in a mirror line • Rotate a shape about a point • Translate points and shapes by a given vector • Compare rotation and reflection of shapes. • Enlarge a shape using scale factors

	<ul style="list-style-type: none"> • Understand scale factors as multiplicative relationships • Draw and interpret scale diagrams • Interpret maps using scale factors and ratio • Form algebraic expressions • Expand and factorise with brackets • Form and solve linear equations including with unknowns on both sides including area, perimeter and angles problems. • Represent, form and solve inequalities • Generate sequences using given algebraic rules • Find and use nth term rules for linear sequences. 	<ul style="list-style-type: none"> • Using the addition law & subtraction law for indices • Use the negative and fractional index law • Convert between decimals and percentages more than 1/100% • Calculate percentage increase and decrease using a multiplier • Express one number as a fraction or a percentage of another • Work with percentage change • Find the original amount given the percentage less than and more than 100% • Choose appropriate methods to solve percentage problems • Convert numbers between standard form and ordinary numbers. • Add, subtract, multiply and divide in standard form • Round numbers to nearest decimal places and significant figures • Estimate answer to calculations • Understand and use error interval 	<ul style="list-style-type: none"> • Find the result of a series of transformations • Set up a statistical enquiry and design and criticise questionnaires • Represent and interpret data using charts and graphs • Choose the most appropriate diagram for a given set of data • Represent and interpret grouped quantitative data • Find and interpret the range • Compare distributions • Identify misleading graphs • Understand & use mean, median & mode of lists of data & calculate range • Choosing appropriate averages and calculate reverse mean • Calculate the mean from tables
Assessment	Unit Test 1: Multiplying and dividing fractions Unit Test 2: Multiplicative change Summative Assessment 1 (2 papers) Unit Test 3: Brackets, Equations and Inequalities	Unit Test 4: Linear Graphs Unit Test 5: Representing data Unit Test 6: Fractions and percentages Unit Test 7: Standard Index Form	Summative Assessment 2 (2 papers) Unit Test 8: Area of 2D shapes Unit Test 9: Transformations Unit Test 10: Data handling cycle