

Mathematics FOUNDATION Long Term Plan Year 10 2019-20

Temperance Term

W/C	2nd September	9th September	16th September	23rd September	30th September	7th October	14th October	21st October
Topic	Angles Scale diagrams and bearings		Basic Number, Factors and multiples	Basic algebra		Basic fractions and Decimals	Co-ordinates and linear graphs	
	Angles at a point, on a line, on parallel lines, vertically opposite angles		Negative numbers Approximations LCM HCF, Prime Numbers, Factors Squares, Cubes	Notation, simplifying expressions Collecting like terms Expand & Factorise Linear expressions Expand & Factorise Quadratic Expressions		Four operations, Ordering, conversion to fractions decimals & percentages Add & subtract Multiply & divide fractions	Co-ordinates in 4 quadrants, $y=mx+c$ Gradient & Intercept Mid-Point of a line Find line length (Pythagoras)	
Challenge	Scale factors, 3 figure bearings Back bearings		Prime factor decomposition Venn Diagrams	Plot & interpret Quadratic Graphs		Use improper & mixed fractions	Gradient & intercept from line Mid points mathematically	
Assessment								
W/C	4th November		11th November	18th November	25th November	2nd December	9th December	CHRISTMAS
Topic	Rounding		Assessments GCSE "Mock" Style	Sequences	Collecting and Representing Data		Investigations	
	Decimal places, significant figures Recurring decimals			nth term for linear sequences, special sequences Position to term rule Term to term rule	Questionnaire Bar charts, pie charts, pictograms, vertical line charts		Investigations & Problem Solving	
Challenge	Recurring decimals			Recognise simple quadratic sequences	Interpret & Construct pie charts			
Assessment								

Justice Term



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W/C	6 th January	13 th January	20 th January	27 th January	3 rd February	10 th February	HALF TERM
Topic	Basic Percentages		Perimeter and area		Circles	Real life graphs	
	Express One quantity as a percentage of another, FDP conversions Percentage Increase, Decrease		Area and perimeter of 2D shapes (Rectangles, parallelograms trapezium) Perimeter & Areas of composite shapes, properties of 3D shapes.		Definitions, circumference area, arc length, sector area	Calculating and interpreting, speed/distance/ time	
Challenge	Simple & Compound Interest Reverse percentage problems		Trigonometry Pythagoras' Theorem Surface area of 3D shapes		Calculate circumference & area of whole and sector circles	SDT real life situations	
Assessment							
W/C	24 th February	2 nd March	9 th March	16 th March	23 rd March	30 th March	EASTER
Topic	Ratio and proportion	Properties of polygons	Equations	Indices	Standard Form	Transformations	
	Division in a ratio, Proportion in cooking	Special quadrilaterals, angle sum of polygons	Substitute into formulae, solve linear equations Factorise & expand brackets	Index notation, Index laws Simplifying Indices	Converting to and from Standard index Form	Translation, Rotation, Reflection, Enlargements, Rotational symmetry	
Challenge	one quantity as a fraction of another, in context Constant of Proportionality	Interior & exterior angles in polygons	Linear & Quadratic factorising	Surds Fractional & Negative indices Rational & irrational numbers	Calculations with and without a calculator (add, subtract, multiply & divide)	Fractional & negative enlargements Vector coordinates, Vector Notation Vectors	
Assessment							



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Courage Term

W/C	20 th April	27 th April	4 th May	11 th May	18 th May	HALF TERM
Topic	Transformations	Probability	Congruence and similarity	Assessments Year 10 Mock Exams		
	Translation, Rotation, Reflection, Enlargements, Rotational symmetry	Probability scale, single and combined events	Applying concepts to shapes, congruence criteria for triangles			
Challenge	Fractional & negative enlargements Vector coordinates, Vector notation Vectors	Probability trees Mutually inclusive & exclusive outcomes	Congruence & Similarity in 2D shapes			
Assessment						
W/C	1 st June	8 th June	15 th June	22 nd June	29 th June	6 th July
Topic	Work Experience	2D/3D shapes	Calculating with percentages	Measures	Statistical measures	Constructions and loci
		Plans and elevations of 3D shapes Compound shapes	% increase/ decrease, find original value, simple interest	Conversion between metric and imperial, compound measures	Mean, median, mode, range, comparing data sets	Ruler and compass constructions, application to loci problems
Challenge		Nets of Cylinders & Cones	Compound interest Percentage multipliers	History of maths Imperial measures & coinage	MMMR of grouped data Estimated Mean Modal group	Islamic Art Constructions
Assessment						