

S2 COURSE PLAN NATIONAL 4 ROUTE

TERM 1 - August to October	Powers & Roots	Scientific notation in context; Calculations involving scientific notation	Round to a number of significant figures
			Write large and small numbers in Scientific notation/standard form
			Use numbers written in scientific notation within calculations
	Expressions and Equations	Constructing and solving simple equations	Solve equations with term on both sides e.g., $3x + 4 = 2x - 5$
		Distributive law; Simplifying, multiplying and evaluating simple algebraic terms involving brackets.	Multiply out a single bracket, including more than one within an expression e.g. $3(x + 2)$; $x(x - 4)$; $3(x + 2) - 2(x + 5)$
		Factorising - common factor and factorising expressions	Factorise using single bracket (common factor)
	Angles	Angles in 2D shapes, intersecting and parallel lines	On parallel lines calculate - Corresponding (F), Alternate (Z) and Co-interior (C) angles
			Angles inside polygons
			Calculate Complementary, Supplementary Angles and Vertically Opposite angles

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TERM 2 October- December	Area	Area of composite 2D shapes	Calculate the area of composite 2D shapes, including parallelogram, kite and trapezium approached as composite shapes
	Circle	Circumference and area of a circle	Introduce pi
			Circumference of a circle using formula - $C = \pi d$ or $C = 2\pi r$
			Area of a circle using formula - $C = \pi r^2$
	Circumference and area of simple fractions of circles - half, quarter, third		
Problem Solving	Problem Solving	Problem Solving	

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TERM 3 - January to March	Angles, Symmetry and Transformation	Scale drawings	Simple enlargement and reduction	
			Introduce the term scale factor and use it in simple examples	
		Scales down/up maps or diagrams		
	Angles, Symmetry and Transformation	Right angled triangles - Pythagoras	Bearings	Compass points and 3 figure bearings and their use in drawing scale drawings of journeys
			Pythagoras - finding hypotenuse	
			Pythagoras - finding smaller side	
	Data and Analysis	Right angled triangles - Pythagoras	Using Pythagoras Theorem given coordinates	
			Averages	Calculate mean, median, mode & range and compare data sets
			Statistics	Read data from stem-and-leaf diagrams
			Statistics	Draw stem-and-leaf diagram
	Percentages	Statistics	Draw back-to-back stem-and-leaf diagram	
			Tolerance	Tolerance
			Percentages	Revision of percentages with and without a calculator
	Integers	Percentages	Express a quantity as a percentage of another.	
			Rules of negative numbers	Rules to add (+), subtract (-), multiply (x) and divide (\div) negative (-ve) and positive (+ve) numbers
	Project	Problem solving using negative numbers	Problem solving using negative numbers including real life examples	
Project			Project	

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TERM 4 April - May	SDT	Convert units of time	Convert hours and minutes to hours in decimal form (and reverse)
		Rate	Calculate rate: e.g., miles per hour or number of texts per month etc.
		Speed, Distance & Time	Calculate speed, distance or time given the other two using simple time periods
		Speed, Distance & Time	Calculate speed, distance or time given the other two using time intervals and/or hours and minutes within problems
	Volume	Volume of a prism	Calculate the volume of a prism given the area of the face
		Volume of a prism	Calculate the volume of a prism from a formula - cylinder, triangular prism