S1 COURSE PLAN NATIONAL 4 ROUTE

TERM 1 - August to October	Whole Number	Rounding	Round to the nearest whole number (revision)
		Rounding	Round to the nearest 10, 100, 1000 (revision)
		Rounding	Multiply and divide whole numbers by single digit or by 10,100, 1000
		Communicating Methods	Use add (+), subtract (-), multiply (x) or divide (÷) to solve problems (revision)
		BODMAS	Order of operations (BODMAS) plus use of brackets
	Fractions, Decimals and Percentages	Terminology	Revision - correct terminology used for place value for decimals
		Decimals	Add, subtract, multiply and divide a decimal by a whole number
		Decimal Place	Round to a number of decimal places
			Accuracy when rounding
		Accuracy	Tolerance
		Fraction of a quantity	Calculate fraction of a quantity
		Equivalent fractions and simplest form	Simplifying fractions
		Equivalent fractions and simplest form	Equivalent fractions
		Add and subtract fractions	Add and subtract fractions with same denominator (revision)
		Equivalent fractions and simplest form	Equivalent conversion between common fractions, decimals and percentages
		Percentages	Calculate the percentage of a number with or without a calculator

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TERM 2 - October to December	Integers	Introduction to negative numbers	Introduction to negative numbers in context
		Scales with negative numbers	Read and use a scale with negative numbers on it
	Multiple, Factors & Primes	Identify and use factors, multiples and primes to solve problems	Muliples; Lowest Common Multiple (LCM)
			Factors; Highest Common Factor (HCF)
			Prime numbers; Prime Factors
	Powers & Roots	Powers & Roots	Understand whole number powers and calculate them, with and without calculator
			Understand roots and calculate with and without calculator
	Expressions and Equations	Collect like terms and simplify expressions	Collect like terms involving more than one variable
		Evaluate substitutions	Substitute values into expressions, including multiple terms and squares and square roots
		Constructing and solving simple equations	Solve simple equations - term on one side only e.g. 5x + 6 = 31 (Use balancing method i.e. take 2 from both sides etc..)
	Patterns and Relationships	Number patterns/sequences	Create simple rule to describe a number sequence e.g., 4x+1
		Create and evaluate formula contained in diagrams, problems or statements	Make a simple formula from a diagram, problem, or statement.
	Problem Solving	Problem Solving	Problem Solving

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TERM 3 - January to March	Time	Time	Understand units of time: seconds, minutes, hours, days, weeks, months, years, decade, century etc.
			Convert between (and understand) 12 and 24 time
		Time intervals	Calculate time intervals - 12 and 24 time
	Angles	Angles in 2D shapes	Types of angles (revision) - acute, straight, obtuse, right, reflex, full turn
			Naming angles using 3 letters (revision)
			Draw and measure angles using a protractor
	Symmetry	Line/reflection symmetry	Line/reflection symmetry - line on or out with shape
		Rotational symmetry	Rotational symmetry - using centre as axis of rotation
		Rotational symmetry	Rotational symmetry - using point out with shape as axis of rotation
		Tessellation	Tessellation of simple 2D shapes to produce tiling patterns
		Transformation of point or shape	Reflect, translate or rotate a point or simple 2D shape within a set of axes and describe coordinates
	Properties of 2D Shapes	Draw/properties of 2D shapes (revision)	Draw 2D shapes accurately
			Properties of 2D shapes - square, rectangle, parallelogram, rhombus, kite, triangles (scalene, equilateral, isosceles)
	Perimeter	Convert between metric units of measurement	Know metric units of measurement (mm, cm, m, km) including area
		Perimeter of 2D shapes	Calculate perimeter of 2D shapes
	Area	Area of 2D shapes - using formulae	Use a formula to find the area of 2D shapes - square, rectangle, triangle, kite, parallelogram, rhombus
	Volume	3D shapes	Know properties of 3D shapes (face, edge, vertex)
		Nets of 3D shapes	Draw nets of simple 3D shapes (and construct)
		Volume of 3D shapes - using formulae	Use a formula to find the volume of 3D shapes - cube, cuboid
		Convert between solid and liquid volumes	Know that $1cm^3 = 1ml$, and therefore 1 litre = $1000cm^3$

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TERM 4 - April to May	Coordinates	Coordinates	Revision - axes are labelled x and y; coordinates are in the form (x,y); the 'origin' is (0, 0)
			Read/describe coordinates in the first quadrant in the form (x,y)
			Plot coordinates on a set of axes (first quandrant only)
			Plot and read coordinates in the form (x,y) an all 4 quadrants (negative coordinates)
			Plot and read coordinates in the form (x,y) an all 4 quadrants (negative coordinates)
	Data and Analysis	Graphs and charts	Read and understand graphs and charts
			Recognise misleading and biased data
		Graphs/Charts inc pie charts using discrete and grouped data	Draw graphs/charts (discrete data): bar, line, pictogram, frequency table
			Read data/info from pie charts in simple fractions or percentages e.g. quarter, 25% etc..
	Chance and Uncertainty	Probability	Probability can be written as a fraction, decimal or percentage
			Calculate probability of a simple event
			Calculate probability of an event
			Compare different events to calculate best chance
			Probability can be written as a fraction, decimal or percentage
	Project	Project	Famous Mathematician

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