

Curriculum Map						
Subject: Maths						
Year: 7						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge	Number sense and calculation: .Number sense, adding and subtracting, multiplying , dividing, calculating with negative numbers, order of operations	Expressions and equations Expressions, substitutions, solving equations	2D Shapes: Line and Shapes property	Factors and Primes Prime numbers and Prime decomposition	Angles , types of angles, measuring angles, finding unknown angles	Fractions, Decimals, Percentages: Multiplying and dividing fractions, Fractions of an amount, FDP conversion and ordering
		Measures Calculating with time, using timetables, compound measures and conversions	Perimeter and Area Perimeter and Area, rectangles, triangles compound shapes, Garden project	Fractions Writing and comparing fractions, adding and subtracting fractions	Handling Data and Statistical Diagrams: Averages and range, Tables and Charts, Collecting and presenting data	Theoretical Probability, using fractions decimals and percentages in probability, mutually exclusive events and venn diagrams
		Coordinates coordinates and shapes	Factors and multiples HCF and LCM	Brackets Single brackets	Proportion: Proportion word problems	Gnome Project - Using gnome homes- discovery of Nth term

Skills	Place value, bidmas, times tables, multiplication grids, number lines, ordering of integers Calculating with roots and powers, Using the correct order of operations Using the commutative laws Using the associative laws	Expressions: inverse operations, simplifying terms , bidmas Measures: using metric conversions, understanding real life examples eg mass density, volume	Line properties, shape properties, eg vertices, edges, faces line symmetry, using perimeter grids, understanding of what a compound shape is, area of triangles, rectangles, circles, reading and plotting coordinates, understanding x /y axis, shape problem solving. Finding lowest common multiple, Highest common factor	Prime numbers and prime factorisation, equivalent fractions, ordering fractions, simplifying fractions, converting improper fractions, adding and subtracting fractions by making a common denominator. Expanding and simplifying single brackets, directed number multiplication	Measuring, drawing and estimating angles. Naming types of angles. Angles in parallel lines. Calculation of the mean median and modal averages, Use of two way tables, tally charts, bar charts. Collecting data, finding averages from frequency tables, interpreting of data from tables and charts. Use of ratio and proportion to solve problems and worded questions	Multiplying fractions, dividing fractions, simplifying fractions, use of mixed fraction calculations
Key Questions	https://static.sparxhomework.uk/assets/sparx-resources/Sparx_Year_7_Term1_Deepen_Number_sense.pdf	https://static.sparxhomework.uk/assets/sparx-resources/Sparx_Year_7_Term1_Deepen_Expressions.pdf	What is rotational symmetry? What units are used for area and perimeter? which axis use for our first coordinate, what does a negative coordinate mean? what is a quadrant?, what is the difference between a factor and a multiple?	Why is 1 not a prime number? why do we write decomposition in index form? how do we use LCM for help add and subtract fractions? Can you explain the relationship between expanding and factorising brackets	What unit is used for angles? Can estimate angles? Can you define different types of angles? How are averages used in real life? Which average is the most appropriate for the data you have?	How important is place value when converting to decimals? why would you need to convert decimals and percentages? What is the difference between theoretical and experimental probability?

<p>Assessment</p>	<p>Students sit an end of term test at the end of each term, these are marked by the teacher and a full ReACT to the test is completed in lesson, teachers will use a visualiser to model the answers and identify marks and common misconceptions. Continued low stake questioning in class. Peer mentoring. AFL whiteboards and encouragement</p> <p>AO1: Use and apply standard techniques Students should be able to:</p> <ul style="list-style-type: none"> -accurately recall facts, terminology and definitions. -use and interpret notation correctly. -accurately carry out routine procedures or set tasks requiring multi-step solutions. <p>AO2: Reason, interpret and communicate mathematically Students should be able to:</p> <ul style="list-style-type: none"> -make deductions, inferences and draw conclusions from mathematical information. -construct chains of reasoning to achieve a given result interpret and communicate information accurately. -present arguments and proofs. -assess the validity of an argument and critically evaluate a given way of presenting information. <p>AO3: Solve problems within mathematics and in other contexts Students should be able to:</p> <ul style="list-style-type: none"> -translate problems in mathematical or non-mathematical contexts into a process or a series of mathematical processes. -make and use connections between different parts of mathematics. -interpret results in the context of the given problem. -evaluate methods used and results obtained. <p>-evaluate solutions to identify how they may have been affected by assumptions made.</p>
	<p>teracy/ numeracy/ SMSC/ Character</p>

Enrichment opportunities and futures	Intermediate maths challenge Revision sessions after school STEM club Real life application projects, Maths buddies- opportunities to work with different ages groups and ability Trips, outside speakers and futures links within curriculum.
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