

Now that the revised curriculum has been taught, please consider the Implementation and Impact of the curriculum you taught. What changes might need to be made to the Curriculum Intent (See Curriculum Map and Overviews) in light of this year's experiences?

• Year 7 Overview 2023-24 – Mathematics			
Date	Wk	Week	Units Studied & Learning Outcomes
Half-Term		8 weeks (28 lessons) (35 Days)	
Tues 5-Sep	A	1	<u>Calculation and Investigations</u> <u>Learning Outcomes:</u> GW: Know how to perform standard basic calculation methods BI: Perform standard calculations for more challenging values ('long') EW: Know when to apply standard calculation methods to solve problems
11-Sep	B	2	<u>Using negative numbers effectively</u> <u>Learning Outcomes:</u> GW: Know that negative numbers are the additive inverse. Know negatives as their position on the number line. BI: Know how to add and subtract with negative numbers EW: Know how to solve inverse operations problems with negatives
18-Sep*	A	3 RQ 1	<u>Order of Operations</u> <u>Learning Outcomes:</u> GW: Know that the order of operations as describing the relative strength of the operations. BI: Know how to apply the order of operations for simple calculations EW: Know how to insert brackets into calculations to give a particular answer
25-Sep	B	4	<u>Measures of 2D Shapes</u> <u>Learning Outcomes:</u> GW: Know which measurements are necessary to calculate an area. BI: Know how to calculate areas of parallelograms, triangles, and trapezia. EW: Calculate missing lengths when given the area.
2-Oct	A	5	<u>Introduction to basic algebra notation</u> <u>Learning Outcomes:</u> GW: Know that algebraic symbols represent unknown numerical values and that rules of arithmetic are preserved. BI: Know how to form expressions using simple operations EW: Know how to collect like terms to simplify expressions
9-Oct	B	6 RQ 2	<u>Understanding Ratio and Fractions</u> <u>Learning Outcomes:</u> GW: Know that ratios compare parts with parts, fractions compare parts with the whole BI: Know how to represent relationships with a ratio, simplify ratios EW: Complete equivalent ratios
16-Oct	A	7	<u>Properties of 2D shapes</u> <u>Learning Outcomes:</u> GW: Know that the 2D shapes are defined by properties involving equality and their notations. BI: Know how to classify shapes according to their properties.

			EW: Know how to solve problems, including angle problems, using the properties.
23-Oct	B	8	<p>Representing Categorical Data</p> <p><u>Learning Outcomes:</u> GW: Know that the height of the bar represents the frequency. BI: Know how to construct and read composite and comparative bar charts. EW: Know how to interpret bar charts, and use them to compare data sets.</p>
Half-Term		7 weeks (24 lessons) (35 Days)	
6-Nov	A	9	<p>Angle facts</p> <p><u>Learning Outcomes:</u> GW: Know the angle sum of a full, and half turn. BI: Know how to calculate angles, including exterior angles of regular polygons EW: Form and solve equations using angle facts</p>
		RQ 3	
13-Nov	B	10	<p>Form & solve linear equations</p> <p><u>Learning Outcomes:</u> GW: Know that an equation shows that two expressions are equal. Know which operations are inverses of each other BI: Know how to solve linear equations with one or two operations. EW: Know how to use an equation to represent a problem and then to solve it.</p>
20-Nov	A	11	<p>Use of a Calculator and Calculation with Decimals</p> <p><u>Learning Outcomes:</u> GW: Know how to perform basic arithmetic calculations on the calculator. BI: Calculate with decimals for simple cases EW: Know how to use the fractions, square, and square root functions on a calculator.</p>
27-Nov	B	ST1	

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4-Dec	A	ST1	
11-Dec	B	14 RQ 4	3D shapes <u>Learning Outcomes:</u> GW: Know the definitions of face, edge, and vertex. Know names of common solids. BI: Know how to calculate the volume of cuboids and prisms. EW: Know when to use the volume of a prism to solve a problem.
18-Dec	A	15	EBI
Christmas Holiday		7 weeks (25 lessons) (33 Days)	
8-Jan	B	16	Writing Formulae & Substitution <u>Learning Outcomes:</u> GW: Know that an expression represents a calculation to a variable that gives a value, and a formula is a rule that links two of more variables. BI: Know how to substitute values into formulae and evaluate them. EW: Know how to form formulae to represent situations.
15-Jan			Metric Units <u>Learning Outcomes:</u> GW: Know that the metric system uses powers of 10 to convert between measures in a consistent way. BI: Know how to convert metric measures for length, mass, and capacity. EW: Know when to convert units in order to solve a problem.
	A	17	
22-Jan	B	18 RQ 5	Rounding <u>Learning Outcomes:</u> GW: Know that rounding shows which multiple a value is closest to. BI: Know how to round to powers of 10 (including 1 d.p.) and multiples of 1-12. EW: Know when to use rounding in simple estimation, particularly division.
29-Jan	A	19	Vertical & horizontal lines in 4 quads <u>Learning Outcomes:</u> GW: Know that patterns in coordinates produce linear representations BI: Plot, and recognise, equations of the form $x = a$ and $y = b$. EW: Plot, and recognise, equations of the form $y = x$ and $y = -x$
5-Feb	B	20	Reflection & rotation <u>Learning Outcomes:</u> GW: Know that a reflection is defined by its mirror line, a rotation is defined by its centre and angle of turn. BI: Know how to perform and describe horizontal and vertical reflections. Know how to rotate shapes by any centre by multiples of 90° . EW: Know how to perform and describe reflections in the lines $y = x$, $y = -x$. Know how to fully describe rotations.
12-Feb	A	21 RQ 6	Factors, multiples, primes <u>Learning Outcomes:</u>

			<p>GW: Know that a factor of an integer divides it exactly, that a multiple is the result of integer multiplication, that primes have exactly two factors</p> <p>BI: Know how to test for divisibility, identify factors and multiples of a number, learn squares and associated roots.</p> <p>EW: Identify factors of algebraic expressions.</p>
Half-Term		5 weeks (17 lessons) (25 Days)	
26-Feb	B	22	<p>Theoretical Probability</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that probabilities lie on a scale 0-1. Know that theoretical probabilities can be calculated when all the outcomes are equally likely.</p> <p>BI: Describe probabilities as fractions, use the fact that $P(\text{event}) + P(\text{event not}) = 1$</p> <p>EW: Understand that probabilities decrease as more variables are included, decrease as more success cases are considered [and rule/or rule]</p>
4-Mar	A	23	<p>Constructions</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that given sets of information produce congruent triangles.</p> <p>BI: Know how to construct triangles given minimal information.</p> <p>EW: Know how to construct rhombuses and kites and derive standard constructions from them.</p>
11-Mar	B	24 RQ 7	<p>FDP equivalences</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that decimals and percentages are representations of particular types of fractions</p> <p>BI: Know how to fluently convert between FDP representations of multiples of 5%</p> <p>EW: Know how to use equivalence to order sets of fractions, decimals and percentages</p>
18-Mar	A	25	<p>Generate sequences</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that number sequences can be generated by (and described by) functions.</p> <p>BI: Know how to generate and describe rules using term-to-term and position-to-term rules.</p> <p>EW: Know when a term will be part of a sequence and justify it.</p>
25-Mar*	B	26	<p>Adding & subtracting fractions</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that only fractions with like denominators can be easily added.</p> <p>BI: Know how to use equivalent fractions to add and subtract fractions with unlike denominators.</p> <p>EW: Know when to apply fraction calculation skills in contexts.</p>
Easter Holiday^{6,7}		6 weeks (21 lessons) (29 Days)	
15-Apr	A	27 RQ 8	<p>Proportion: Scaling</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that quantities in direct proportion can be scaled multiplicatively.</p>

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			<p>BI: Know how to solve proportion problems, including those with an intermediary step.</p> <p>EW: Know how to use proportion to make comparisons.</p>
22-Apr	B	28	<p>Percentages</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that a percentage is a fraction with denominator of 100.</p> <p>BI: Know how to calculate percentages of amounts with multiples of 5%</p> <p>EW: Know how to increase/decrease by a percentage (multiple of 5%)</p>
29-Apr	A	29	<p>Changing the subject</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that a formula shows an arithmetic connection between two variables</p> <p>BI: Know how to change the subject of a one-step formula</p> <p>EW: Know how to change the subject of a formula involving more than two variables.</p>
6-May*	B	30 RQ 9	<p>Averages</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that averages are a measure of central tendency and know each one's limitations.</p> <p>BI: Know how to identify averages from a small data set.</p> <p>EW: Know when averages can be used to compare data sets.</p>
13-May	A	ST2	
20-May	B	ST2	
Half-Term		7 weeks (25 lessons) (35 Days)	
3-Jun	A	33	<p>Representing inequalities on a number line</p> <p><u>Learning Outcomes:</u></p> <p>GW: Understand inequality notation, including combined $>$ and $=$</p> <p>BI: Describe rules using inequalities</p> <p>EW: Represent and read inequalities on number lines</p>
10-Jun	B	34	EBI
17-Jun	A	35	<p>Plot graphs of linear functions</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that a function generates infinitely many coordinate pairs that satisfy it.</p> <p>BI: Know how to plot graphs of simple one and two operation functions.</p> <p>EW: Know why the change of a term in a function may alter its graph in a particular way.</p>
24-Jun	B	36 RQ 10	<p>Solving problems involving time, timetables and two-way tables</p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that timetables show the progress of a vehicle vertically.</p> <p>BI: Know how to convert between 12hr and 24hr time, Know how to read, and calculate with, information from a timetable.</p> <p>EW: Know how to use timetables to plan more complex journeys.</p>
1-Jul	A	37	<p>Time Series Charts</p> <p><u>Learning Outcomes:</u></p>

			<p>GW: Know that a time series shows the fluctuations of a measure with respect to time.</p> <p>BI: Know how to plot and read time series charts.</p> <p>EW: Know how to identify trends of, and extrapolate from, time series charts.</p>
8-Jul			<p><u>Real life graphs – No explicit use of speed formula</u></p> <p><u>Learning Outcomes:</u></p> <p>GW: Know that distance-time graphs measure relative distance with respect to time.</p> <p>BI: Know how to plot and interpret distance-time graphs</p> <p>EW: Know how to plot and interpret distance-time graphs when given speed information.</p>
	B	38	
15-Jul	A	39	

* Bank Holidays