

Year 8 Overview 2024-25 – Mathematics

Date	Wk	Week	Units Studied & Learning Outcomes
7 weeks (?? Lessons) (38 Days)			
Tues 5-Sep	A	1	<u>Use of a Calculator (3)</u> Learning Outcomes: GW: Know the order of operations and efficiently use a calculator BI: Apply the order of operations EW: Understand that certain operations are equivalent and use this to solve problems
9-Sep	B	2	<u>Order of Operations (3)</u> Learning Outcomes: GW: Know the order of operations BI: Apply the order of operations EW: Understand that certain operations are equivalent and use this to solve problems
16-Sep*	A	3	<u>Area and Circumference of Circles</u> <u>Area of Compound Shapes (4)</u> Learning Outcomes: GW Can calculate the circumference or area given radius or diameter BI Can find the area of compound shapes EW Can calculate radius or diameter given area or circumference
23-Sep	B	4 RQ 1	<u>Finding and Using the n^{th} term (3)</u> Learning Outcomes: GW Describe a sequence using its Nth term BI Recognise and continue geometric and Fibonacci sequences EW Use Nth term to check whether a term lies in a sequence
30-Sep	A	5	<u>Representing Data</u> Learning Outcomes: GW Construct Frequency diagrams with reasonable accuracy BI Construct frequency diagrams accurately EW Compare data sets using frequency polygons
7-Oct	B	6	<u>Equation of a Straight Line</u> Learning Outcomes: GW Solve equations graphically, recognise gradient as rate of change of y-coordinate BI Calculate positive integer gradients and intercepts, find equation of a line EW Find equation of a line with negative or fractional gradient
14-Oct	A	7 RQ 2	<u>Two Way Tables and Venn Diagrams</u> Learning Outcomes: GW Can enumerate a Venn diagram, complete a two-way table BI Can calculate probabilities from Venn diagrams and two-way tables EW Complete Venn diagrams given probabilities
21-Oct	B	8	<u>Rounding and Estimation</u> Learning Outcomes: GW Round to 1 significant figure BI Round to 2 or 3 significant figures. Estimate using sig fig EW Estimate multi-calculation problems

4-Nov	A	9	<u>Percentages and Finance</u> <u>Learning Outcomes:</u> GW: Express a quantity as a Percentage BI: Compare and explain different amounts using Percentage EW: Efficiently use Multipliers to find a Percentage of an Amount
11-Nov	B	10 ST1	
18-Nov	A	11 ST1	
25-Nov	B	12 RQ 3	<u>Substitution with Negative numbers</u> <u>Learning Outcomes:</u> GW: Can multiply and divide with negatives BI: Can substitute negative numbers into formulae EW: Can substitute numbers into complex formulae, including powers and roots.
2-Dec	A	13	EBI to ST1
09-Dec	B	14	<u>Sharing in a Ratio, Unit Ratio</u> <u>Learning Outcomes:</u> GW: Simplify to a Unit Ratio BI: Share an amount into a given ratio EW: Solve problems using sharing a ratio
16-Dec	A	15	<u>Angles in Parallel Lines</u> <u>Learning Outcomes:</u> GW: Identify the relationship between in angles in parallel lines BI: Use angle facts to find missing angles in parallel lines EW: Explain what angle facts you have used to get an answer
6-Jan	B	16 RQ 4	<u>Averages & Mean from a Frequency Table</u> <u>Learning Outcomes:</u> GW: Complete a data set from a known average BI: Find the mean from a frequency table EW: Find the median from a frequency table
13-Jan	A	17	<u>Expanding Single Brackets</u> <u>Factorising Expressions</u> <u>Learning Outcomes:</u> GW: Expand arithmetic terms over brackets BI: Expand algebraic terms over brackets EW: Factorise to one bracket
20-Jan	B	18	<u>Constructions and Loci</u> <u>Learning Outcomes:</u> GW: Can perform standard constructions BI: Can use constructions to identify loci EW: Use constructions and loci to solve problems
27-Jan	A	19 RQ 5	<u>Translation and Enlargements</u> <u>Learning Outcomes:</u> GW: Translate and object using column vectors BI: Scale a Column Vector EW: Enlarge an object using a positive scale factor

3-Feb	B	20	<u>Solving Equations</u> <u>Learning Outcomes:</u> GW: Can solve equations that include brackets BI: Can form equations EW: Can form and solve equations.
10-Feb	A	21	<u>Mixed Numbers</u> <u>Ordering FDP</u> <u>Learning Outcomes:</u> GW: Convert between mixed and improper fractions BI: Convert between Fractions, Decimals and Percentages EW: Order Fractions, Decimals and Percentages
25-Feb	B	22 RQ 6	<u>Changing the Subject</u> <u>Learning Outcomes:</u> GW: Know the inverse operations BI: Change the subject of a formula including 2 and 3 steps EW: Change the subject of formula including fractions
3-Mar	A	23	<u>3D Shapes</u> <u>Learning Outcomes:</u> GW: Draw a plan and elevation of a 3D object BI: Draw a 3D object using isometric paper EW: Combine understanding of drawing 3D objects with the volume of a prism
10-Mar	B	24	<u>Calculating with Fractions</u> <u>Learning Outcomes:</u> GW: Add and Subtract with Mixed Numbers BI: Multiply Fractions EW: Multiplying Mixed Numbers
17-Mar	A	25 RQ 7	<u>Probability / Relative Frequency</u> <u>Learning Outcomes:</u> GW: Can find a probability of an event from performing an experiment BI: Can understand that the greater number of experiments, the more accurate the probability is EW: Can use probability from an experiment to estimate real life implications
24-Mar	B	ST2	
31-Mar	A	ST2	
22-Apr	B	28	<u>Simple Direct Proportion</u> <u>Learning Outcomes:</u> GW: Solve simple direct proportion problems BI: Use a scaling method to show best value EW: Apply best value to solve problems in context
28-Apr	A	29	<u>EI</u>
5-May	B	30	<u>Speed, Distance, Time</u> <u>Learning Outcomes:</u> GW: Know the relationship between Speed, Distance and Time BI: Use scale to find the Speed, Distance or Time EW: Use a formula to find the Speed, Distance or Time

12-May	A	31 RQ 8	<u>Solve Linear Inequalities</u> Learning Outcomes: GW: Can solve linear inequalities requiring two steps BI: Can solve linear inequalities including fractions and brackets EW: Can solve linear inequalities with variables on both sides
19-May	B	32	<u>HCF & LCM by listing</u> Learning Outcomes: GW: Find the HCF of two numbers BI: Find the LCM of two numbers EW: Solve problems involving the HCF and LCM
2-Jun	A	33	<u>Indices</u> Learning Outcomes: GW: Can write a number as a power of a base BI: Can use laws of indices to simplify calculations EW: Can use laws of indices to solve equations
9-Jun	B	34 RQ 9	<u>Multiplying Decimals</u> Learning Outcomes: GW: Multiply and Divide by a Power of 10 BI: Multiply Decimals by Decimals EW: Use the multiplication of decimals to help solve problems
16-Jun	A	35	<u>Plotting Quadratics</u> Learning Outcomes: GW Can draw simple quadratic graphs from a table of values BI Can find approximate solutions to quadratic graphs EW Can recognise key points of Quadratic Curve, including its roots
23-Jun	B	36	<u>Converting between Metric Units for Area</u> Learning Outcomes: GW Can understand how the scale factor is affected by area BI Can convert between metric area EW Can solve problems using scale factor of area
30-Jun	A	37 RQ 10	<u>Bearings and Scale Drawing</u> Learning Outcomes: GW: Draw and Calculate Bearings BI: Understand and Interpret Scale Drawings EW: Combine Bearings with Scale Drawings
7-Jul	B	38	<u>Direct Proportion Graphs</u> Learning Outcomes: GW: Can identify direct proportion from two variables and draw a graph to represent this BI: Can use a direct proportion to read of values EW: Can use a direct proportion graph to find exact values when the quantity is not shown on the axis
14-Jul	A	39	Recall/Enrichment

* Bank Holidays

