

Topic List

Below is a list of all of the available topics.

For each topic there is a lesson (plus link to the relevant video) and an accompanying worksheet (with QR code for the same video).

Grey topics are being created and will be published shortly.

Each topic is colour coded...

Green for approx. GCSE grades 1-3

Blue for approx. GCSE grades 4&5

Purple for approx. GCSE grades 6-9

Green & Blue topics for FOUNDATION tier

Blue & Purple topics for HIGHER tier

NUMBER

<u>Chapters</u>	<u>Titles</u>	<u>Lesson Code</u>
Chapter 1 - Integers	Part 1: Adding Integers	N 1.1
	Part 2: Subtracting Integers	N 1.2
	Part 3: Multiplying Integers	N 1.3
	Part 4: Dividing Integers	N 1.4
	Part 5: Order of Operations	N 1.5
	Part 6: Prime Numbers & Prime Factor Decomposition	N 1.6
	Part 7: Factors & Highest Common Factor (HCF)	N 1.7
	Part 8: Multiples & Lowest Common Multiple (LCM)	N 1.8
Chapter 2 - Negative Numbers	Part 1: Adding & Subtracting Negative Numbers	N 2.1
	Part 2: Multiplying & Dividing Negative Numbers	N 2.2
Chapter 3 - Decimals	Part 1: Place Value & Ordering Decimals	N 3.1
	Part 2: Multiplying & Dividing by 10, 100, 1000	N 3.2
	Part 3: Adding & Subtracting Decimals	N 3.3
	Part 4: Multiplying Decimals	N 3.4
	Part 5: Dividing Decimals	N 3.5
	Part 6: Related Calculations	N 3.6
Chapter 4 – Fractions	Part 1: Equivalent Fractions	N 4.1
	Part 2: Mixed Numbers & Improper Fractions	N 4.2
	Part 3: Ordering Fractions	N 4.3
	Part 4: Adding & Subtracting Fractions	N 4.4
	Part 5: Multiplying Fractions	N 4.5
	Part 6: Dividing Fractions	N 4.6
	Part 7: Fractions of an Amount	N 4.7
Chapter 5 - Fractions, Decimals & Percentages	Part 1: Converting between Fractions, Decimals & Percentages	N 5.1

	Part 2: Ordering Fractions, Decimals & Percentages	N 5.2
	Part 3: Recurring Decimals	N 5.3
Chapter 6 – Percentages	Part 1: Expressing One Quantity as a Percentage of Another	N 6.1
	Part 2: Percentages of an Amount (Non - Calculator)	N 6.2
	Part 3: Percentages of an Amount (Calculator)	N 6.3
	Part 4: Percentage Increase / Decrease	N 6.4
	Part 5: Percentage Change	N 6.5
	Part 6: Reverse Percentages	N 6.6
	Part 7: Compound Interest	N 6.7
Chapter 7 – Rounding	Part 1: Rounding - Nearest 10, 100, 1000	N 7.1
	Part 2: Rounding - Nearest Whole Number & Decimal Places	N 7.2
	Part 3: Rounding - Significant Figures	N 7.3
	Part 4: Truncating	N 7.4
	Part 5: Estimation	N 7.5
	Part 6: Error Intervals	N 7.6
	Part 7: Calculating with Upper & Lower Bounds	N 7.7
Chapter 8 – Indices	Part 1: Indices - Squares, Cubes & Powers	N 8.1
	Part 2: Laws of Indices	N 8.2
	Part 3: Fractional Indices	N 8.3
Chapter 9 - Standard Form	Part 1: Standard Form	N 9.1
	Part 2: Calculating with Standard Form	N 9.2
Chapter 10 – Surds	Part 1: Surds	N 10.1
	Part 2: Rationalising the Denominator	N 10.2
Chapter 11 – Calculations	Part 1: Using a Calculator	N 11.1
	Part 2: Time	N 11.2
	Part 3: Money	N 11.3
	Part 4: Exchange Rates	N 11.4

RATIO, PROPORTION & RATES OF CHANGE

<u>Chapters</u>	<u>Titles</u>	<u>Lesson Code</u>
Chapter 1 – Ratio	Part 1: Introduction to Ratio	R 1.1
	Part 2: Simplifying Ratio	R 1.2
	Part 3: Sharing in a Ratio	R 1.3
	Part 4: Ratio Problems	R 1.4
Chapter 2 – Proportion	Part 1: Introduction to Proportion	R 2.1
	Part 2: Direct & Inverse Proportion	R 2.2
	Part 3: Direct Proportion (Algebra)	R 2.3
	Part 4: Inverse Proportion (Algebra)	R 2.4
Chapter 3 - Compound Measures	Part 1: Speed	R 3.1
	Part 2: Density	R 3.2
	Part 3: Pressure	R 3.3
Chapter 4 - Real-Life Graphs	Part 1: Conversion Graphs	R 4.1
	Part 2: Other Real-Life Graphs	R 4.2
	Part 3: Distance-Time Graphs	R 4.3
	Part 4: Speed-Time Graphs (Straight Lines)	R 4.4
	Part 5: Speed-Time Graphs (Curves)	R 4.5

ALGEBRA

<u>Chapters</u>	<u>Titles</u>	<u>Lesson Code</u>
Chapter 1 - Co-ordinates	Part 1: Co-ordinates	A 1.1
	Part 2: Midpoint of a Line	A 1.2
	Part 3: 3D Co-ordinates	A 1.3
Chapter 2 - Linear Graphs	Part 1: $x = a$, $y = b$ Graphs	A 2.1

	Part 2: Plotting Linear Graphs ($y = mx + c$)	A 2.2
	Part 3: Equations of Linear Graphs ($y = mx + c$)	A 2.3
	Part 4: Using $y = mx + c$ to Draw Linear Graphs	A 2.4
	Part 5: Using $y = mx + c$ to Solve Problems	A 2.5
	Part 6: Using Gradients and Co-ordinates to find $y = mx + c$	A 2.6
	Part 7: Parallel & Perpendicular Lines	A 2.7
Chapter 3 – Algebra	Part 1: Algebraic Notation	A 3.1
	Part 2: Collecting Like Terms	A 3.2
	Part 3: Multiplying Terms	A 3.3
	Part 4: Dividing Terms	A 3.4
	Part 5: Expanding Single Brackets	A 3.5
	Part 6: Factorising into Single Brackets	A 3.6
	Part 7: Laws of Indices (Algebra)	A 3.7
	Part 8: Function Machines	A 3.8
	Part 9: Substitution	A 3.9
	Part 10: Solving Linear Equations	A 3.10
	Part 11: Solving Linear Equations (with the unknown on both sides)	A 3.11
	Part 12: Changing the Subject	A 3.12
	Part 13: Changing the Subject (Advanced)	A 3.13
Chapter 4 – Quadratics	Part 1: Expanding Double Brackets	A 4.1
	Part 2: Factorising Quadratics	A 4.2
	Part 3: Factorising Quadratics (Advanced)	A 4.3
	Part 4: Completing the Square	A 4.4
	Part 5: Plotting Quadratic Graphs	A 4.5
	Part 6: Solving Quadratics - Graphically	A 4.6
	Part 7: Solving Quadratics - Graphically (Advanced)	A 4.7

	Part 8: Solving Quadratics - Factorising	A 4.8
	Part 9: Solving Quadratics - Factorising (Advanced)	A 4.9
	Part 10: Solving Quadratics - Quadratic Formula	A 4.10
	Part 11: Solving Quadratics - Completing the Square	A 4.11
	Part 12: Solving Quadratics - All Methods	A 4.12
	Part 13: Sketching Quadratic Graphs	A 4.13
Chapter 5 – Cubics	Part 1: Expanding Triple Brackets	A 5.1
	Part 2: Cubic Graphs	A 5.2
Chapter 6 - Other Graphs	Part 1: Reciprocal Graphs	A 6.1
	Part 2: Exponential Graphs	A 6.2
	Part 3: Equations of Tangents to Circles	A 6.3
	Part 4: Trigonometric Graphs	A 6.4
	Part 5: Transformations of Graphs	A 6.5
Chapter 7 – Inequalities	Part 1: Inequalities on a Number Line	A 7.1
	Part 2: Solving Linear Inequalities	A 7.2
	Part 3: Solving Linear Inequalities Graphically	A 7.3
	Part 4: Solving Quadratic Inequalities	A 7.4
Chapter 8 – Iteration	Part 1: Trial & Improvement	A 8.1
	Part 2: Iteration	A 8.2
Chapter 9 - Simultaneous Equations	Part 1: Simultaneous Equations - Linear	A 9.1
	Part 2: Simultaneous Equations – Non-Linear	A 9.2
Chapter 10 – Sequences	Part 1: Linear Sequences	A 10.1
	Part 2: Quadratic Sequences	A 10.2
	Part 3: Geometric & Fibonacci Sequences	A 10.3
Chapter 11 - Algebraic Fractions	Part 1: Algebraic Fractions - Simplify	A 11.1
	Part 2: Algebraic Fractions - Add/Subtract	A 11.2

	Part 3: Algebraic Fractions - Multiply/Divide	A 11.3
Chapter 12 – Functions	Part 1: Functions	A 12.1
Chapter 13 – Proof	Part 1: Algebraic Proof	A 13.1

GEOMETRY

<u>Chapters</u>	<u>Titles</u>	<u>Lesson Code</u>
Chapter 1 – Shapes	Part 1: 2D Shapes - Properties	G 1.1
	Part 2: Symmetry	G 1.2
	Part 3: 3D Shapes - Properties	G 1.3
	Part 4: Plans & Elevations	G 1.4
Chapter 2 - Perimeter & Area	Part 1: Perimeter	G 2.1
	Part 2: Area of Rectangles	G 2.2
	Part 3: Area of Parallelograms	G 2.3
	Part 4: Area of Triangles	G 2.4
	Part 5: Area of Trapezia	G 2.5
Chapter 3 – Circles	Part 1: Circumference	G 3.1
	Part 2: Arc Length	G 3.2
	Part 3: Area of Circles	G 3.3
	Part 4: Area of Sectors	G 3.4
Chapter 4 - Surface Area & Volume	Part 1: Surface Area - Prisms & Cylinders	G 4.1
	Part 2: Surface Area – Spheres, Pyramids & Cones	G 4.2
	Part 3: Volume - Prisms & Cylinders	G 4.3
	Part 4: Volume – Spheres, Pyramids & Cones	G 4.4
Chapter 5 – Units	Part 1: Reading Scales	G 5.1
	Part 2: Converting Metric Units	G 5.2

	Part 3: Converting Units - Area/Volume	G 5.3
Chapter 6 – Angles	Part 1: Angles - Types, Measure & Draw	G 6.1
	Part 2: Calculating Angles - Straight Lines & Full Turns	G 6.2
	Part 3: Calculating Angles - Parallel Lines	G 6.3
	Part 4: Calculating Angles - Triangles	G 6.4
	Part 5: Calculating Angles - Polygons	G 6.5
	Part 6: Bearings	G 6.6
Chapter 7 - Constructions	Part 1: Perpendicular Bisector & Angle Bisector	G 7.1
	Part 2: Loci	G 7.2
	Part 3: Constructing Triangles	G 7.3
Chapter 8 - Congruence & Similarity	Part 1: Congruence	G 8.1
	Part 2: Similarity	G 8.2
Chapter 9 - Transformations	Part 1: Reflection	G 9.1
	Part 2: Rotation	G 9.2
	Part 3: Translation	G 9.3
	Part 4: Enlargement	G 9.4
	Part 5: Enlargement (Negative Scale Factors)	G 9.5
Chapter 10 - Pythagoras & Trigonometry	Part 1: Pythagoras' Theorem	G 10.1
	Part 2: Trigonometry - Introduction	G 10.2
	Part 3: Trigonometry - Further	G 10.3
	Part 4: Trigonometry - Exact Values	G 10.4
	Part 5: Sine Rule	G 10.5
	Part 6: Cosine Rule	G 10.6
	Part 7: Area of a Triangle	G 10.7
Chapter 11 – Vectors	Part 1: Vectors	G 11.1
Chapter 12 - Circle Theorems	Part 1: Circle Theorems	G 12.1

	Part 2: Further Circle Theorems	G 12.2
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<u>STATISTICS</u>		
<u>Chapters</u>	<u>Titles</u>	<u>Lesson Code</u>
Chapter 1 - Data Collection	Part 1: The Data Handling Cycle & Questionnaires	S 1.1
	Part 2: Sampling & Capture, Recapture	S 1.2
	Part 3: Types of Data	S 1.3
	Part 4: Tally Charts	S 1.4
	Part 5: Two - Way Tables	S 1.5
Chapter 2 - Averages	Part 1: Mean, Median, Mode, Range	S 2.1
	Part 2: Averages from a Table	S 2.2
Chapter 3 - Charts & Graphs	Part 1: Pictograms & Bar Charts	S 3.1
	Part 2: Pie Charts	S 3.2
	Part 3: Stem & Leaf Diagrams	S 3.3
	Part 4: Frequency Polygons	S 3.4
	Part 5: Time Series	S 3.5
	Part 6: Scatter Graphs	S 3.6
	Part 7: Cumulative Frequency Diagrams	S 3.7
	Part 8: Box Plots	S 3.8
	Part 9: Histograms	S 3.9

<u>PROBABILITY</u>		
<u>Chapters</u>	<u>Titles</u>	<u>Lesson Code</u>
Chapter 1 - Probability	Part 1: Basic Probability	P 1.1

	Part 2: Relative Frequency	P 1.2
Chapter 2 - Combined Probability	Part 1: Listing Outcomes & Sample Space	P 2.1
	Part 2: Product Rule for Counting	P 2.2
	Part 3: Frequency Trees	P 2.3
	Part 4: Tree Diagrams	P 2.4
	Part 5: Venn Diagrams	P 2.5