Topic List

Below is a list of all of the available topics.

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

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

Chapters	Titles	Lesson Code
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

Chapters	Titles	Lesson Code
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

Chapters	Titles	Lesson Code
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

Chapters	Titles	Lesson Code
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 - Introduction	G 11.1
	Part 2: Vectors - Advanced	G 11.2
Chapter 12 - Circle Theorems	Part 1: Circle Theorems	G 12.1
	Part 2: Further Circle Theorems	G 12.2

STATISTICS

Chapters	Titles	Lesson Code

PROBABILITY

Chapters	Titles	Lesson Code