

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Factors, Multiples and Primes Types of Numbers Multiples Common Multiples Lowest Common Multiple Divisibility Tests Factors Prime Numbers Common Factors Highest Common Factor HCF and LCM Worded Problems	Powers and Roots Squaring Square Roots Cubing Cube Roots Notation Powers Roots	Fractions Equivalent Fractions Simplifying Fractions Improper Fractions and Mixed Numbers Adding and Subtracting Fractions Multiplying Fractions Squaring and Square Rooting Fractions Reciprocals Dividing Fractions Mixed Operations Fractions of Amounts Increasing or Decreasing by a Fraction Reverse Fractions of Amounts	Rounding Rounding to the Nearest Multiple Rounding to Decimal Places Rounding to Significant Figures	Fractions, Decimals and Percentages Decimals to Percentages Percentages to Decimals Percentages to Fractions Fractions to Percentages Decimals to Fractions Recurring Decimal Notation Fractions to Decimals
Sets and Venn Diagrams Sets Multiple Sets and The Universal Set Venn Diagrams with Two Circles Venn Diagrams with Three Circles	Order of Operations Commutativity Moving Numbers Around Mixing the Four Operations Exponentiation Brackets	Decimals Adding Decimals Subtracting Decimals Related Calculations Multiplying Decimals Dividing Decimals	Metric Units Metric Units of Length Metric Units of Mass Metric Units of Capacity Metric Units of Time	Ordering Numbers Ordering Negative Numbers Ordering Decimals Ordering Fractions Ordering FDP Inequalities
Negative Numbers Adding and Subtracting Negative Numbers Multiplying Negative Numbers Dividing Negative Numbers Real Life Applications Mixed Operations	Introduction to Algebra Forming Expressions Conventions and Definitions Collecting Like Terms without Powers Collecting Like Terms with Powers Algebraic Notation Multiplying Terms without Powers Multiplying Terms with Powers Dividing Terms without Powers Dividing Terms with Powers Substitution	Solving Linear Equations 1 Terminology One Step Forming Expressions Two Steps Fractions	Properties of 2D Shapes Names of 2D Shapes Line Symmetry Rotational Symmetry Types and Properties of Triangles Types and Properties of Quadrilaterals	Percentages Percentages of Amounts Percentage Increase Percentage Decrease Percentage Change Reverse Percentages
			Area and Perimeter Perimeter on a Grid Perimeter Area on a Grid Area of Rectangles Area of Rectilinear Shapes Area of Parallelograms Area of Triangles Area of Trapeziums Area of Compound Shapes without Circles	Angle Basics Types of Turns and Angles Estimating Angles Measuring Angles Drawing Angles Notation and Labelling Angles on a Straight Line Angles around a Point Vertically Opposite Angles Angles in Triangles Angles in Quadrilaterals

Unit 6

Ratio

Writing Ratios
Equivalent Ratios
Simplifying Ratios
Ratios to Fractions and Percentages
n:1 and 1:n Ratios
Ratio in Different Forms
Scale Drawings
One Quantity Given
Difference Given
Total Given
Mixed Ratios
Combining Ratios

Algebra Recap

Collecting Like Terms
Multiplying Terms
Dividing Terms
Substitution

Index Laws

Notation
Multiplying
Dividing
The Power Zero
Combined
Powers of Powers
Mixed Indices
Negative Indices

Unit 7

Prime Factorisation

Prime Factors
Product of Prime Factors
Using Product of Prime Factors
Factors from Prime Factors
Types of Numbers from Prime Factors
Using Prime Factorisation to Simplify Fractions
Using Prime Factorisation to Find Roots
The Number of Digits and Trailing Zeroes
Number of Factors

Probability

Probability Scale
Probability of Single Events
Mutually Exclusive Events
Exhaustive Events
Expectation
Relative Frequency
Listing Outcomes
Sample Space Diagrams

Expanding Single Brackets

Expanding Single Brackets without Powers
Expanding Single Brackets with Powers
Expanding Single Brackets with Index Laws
Expanding and Simplifying Single Brackets

Unit 8

Factorising to a Single Bracket

Highest Common Factor
Factorising to a Single Bracket
Factorising to a Single Bracket with Index Laws
Finish Factorising

Solving Linear Equations

Brackets
Both Sides
Variable in the Denominator
Cross Multiplication
Forming and Solving Equations

Sequences

Finding the Next Term
Constant Differences
Term to Term Rule
Types of Sequences
Position to Term Rule
Generating Sequences
Linear Sequences
Patterns
Fibonacci-Type Sequences
Is a Term in the Sequence?

Unit 9

Proportion

Direct Proportion
Recipes
Best Buys
Exchange Rates
Inverse Proportion
Direct and Inverse Proportion

Averages and Range

Range
Mode
Median
Mean
Mixed
Determining List of Numbers
Effect on Averages and Range
Deciding which Average to Use
Comparing Data
Using Totals
Combined Mean

Coordinates

Plotting Coordinates
Reading Coordinates
Coordinates with Shapes

Charts

Bar Charts
Vertical Line Charts
Pictograms
Pie Charts
Stem and Leaf Diagrams
Two-Way Tables
Line Graphs and Time Series
Scatter Diagrams

Unit 10

Estimation

Estimations

Circles

Parts of the Circle
Circumference of Circles
Perimeter of Fractions of Circles
Area of Circles
Area of Fractions of Circles
Area and Circumference of Circles
Area and Perimeter of Compound Shapes

Angles in Parallel Lines

Transversals
Corresponding Angles
Alternate Angles
Co-Interior Angles
Mixed
Angles in Parallel Lines with Equations

Unit 11

Fraction Arithmetic
HCF and LCM
Reverse HCF and LCM
Worded HCF and LCM
Converting Numbers to Standard Form
Converting Numbers from Standard Form
Ordering Numbers in Standard Form
Multiplying and Dividing in Standard Form
Adding and Subtracting in Standard Form
Mixed Operations with Standard Form
Types of Numbers
Multiplying Surds
Simplifying Surds
Sum of Interior Angles
Sum of Exterior Angles
Exterior Angles of Regular Polygons
Interior Angles of Regular Polygons
Number of Sides of Regular Polygons
Harder Angles in Polygons

Unit 12

Expanding Double Brackets
Expanding and Simplifying Double Brackets
Factorising by Grouping
Factorising Non-Monic Quadratics
Factorising Monic Quadratics
Factorising Negative Quadratics
Difference of Two Squares
Mixed Factorising
Basic Functions
Solving Functions
Changing the Subject without Factorisation
Changing the Subjects with Powers and Roots
Changing the Subject with Factorisation
Inverse Functions

Unit 13

2D Pythagoras' Theorem
Converse of Pythagoras' Theorem
Distance between Two Points
Harder 2D Pythagoras' Theorem
2D Pythagoras' Theorem with Circles
Faces, Edges and Vertices
Nets
Plans and Elevations
Volume of Cubes and Cuboids
Volume of Prisms
Surface Area of Cubes and Cuboids
Surface Area of Prisms
Volume of Cylinders
Volume of Fractions of Cylinders
Surface Area of Cylinders
Surface Area of Fractions of Cylinders
Area Unit Conversions
Volume Unit Conversions
Speed
Density
Pressure
Other Compound Measures

Unit 14

Inequalities on Number Lines
Set Notation
Solving Linear Inequalities
Combining Inequalities
Drawing Straight Line Graphs
Horizontal and Vertical Lines
Gradient
Collinear Lines
Equation of Straight Line Graphs
Intercepts
Does a Point Lie on a Line
Basic Vectors
Reflections
Rotations
Translations
Enlargements
Negative Enlargements
Mixed Transformations
Combined Transformations
Invariant Points

Unit 15

Percentage of Amounts
Percentage Increase and Decrease
Reverse Percentages
Percentage Change
Simple Interest
Repeated Percentage Change
Compound Interest
Similarity with Length
Right Angled Trigonometry - Sides
Right Angled Trigonometry - Angles
Harder Right Angled Trigonometry
Angles of Elevation and Depression
Pythagoras' Theorem and Trigonometry

Unit 16	Unit 17	Unit 18	Unit 19	Unit 20
Recurring Decimals	Upper and Lower Bounds	Quartiles	Negative Indices	Graphical Simultaneous Equations
Four Operations with Recurring Decimals	Operations with Bounds	Mode of Ungrouped Data	Expanding Brackets with Indices	Solving Linear Simultaneous Equations by Elimination
Parallel Lines	Applications with Bounds	Range of Ungrouped Data	Fractional Indices	Solving Linear Simultaneous Equations by Substitution
Perpendicular Lines	Considering Bounds	Median of Ungrouped Data	Negative and Fractional Indices	Forming and Solving Linear Simultaneous Equations
Midpoints	Truncation	Quartiles of Ungrouped Data	Rewriting Expressions using Indices	Combinations and Permutations
Ratios with Straight Line Graphs	Circle Theorems involving Angles	Mean of Ungrouped Data	Change of Base	Harder Combinations and Permutations
Drawing Graphical Inequalities	Circle Theorems involving Lengths	Modal Class of Grouped Data	Equations with Indices	Drawing Histograms
Interpreting Graphical Inequalities	Mixed Circle Theorems	Range of Grouped Data	Multiplying Surds	Interpreting Histograms
Quadratic Graphs	Direct Proportion	Median Class of Grouped Data	Dividing Surds	Harder Histograms
Solving using Quadratic Graphs	Direct Proportion with Powers	Median of Grouped Data	Adding and Subtracting Surds	Drawing Frequency Polygons
Cubic Graphs	Inverse Proportion	Quartiles of Grouped Data	Expanding Brackets with Surds	Interpreting Frequency Polygons
Reciprocal Graphs	Inverse Proportion with Powers	Estimated Mean of Grouped Data	Applications of Surds	Drawing Box Plots
Exponential Graphs	Mixed Direct and Inverse Proportion	Expanding Triple Brackets	Rationalising Surds	Comparing Box Plots
Recognising Non-Linear Graphs	Proportion Graphs	Expanding and Simplifying Triple Brackets	Harder Rationalising Surds	Drawing Cumulative Frequency Graphs
	Perpendicular Bisectors	Solving Quadratic Equations by Factorising	Simplifying Algebraic Fractions	Interpreting Cumulative Frequency Graphs
	Angle Bisectors	Forming and Solving Quadratic Equations (Factorising)	Multiplying and Dividing Algebraic Fractions	Box Plots and Cumulative Frequency Graphs
	Constructing Triangles	Solving Other Equations	Adding and Subtracting Algebraic Fractions	
	Loci	Discriminant	Mixed Operations with Algebraic Fractions	
		Solving Quadratic Equations by the Formula	Solving Equations with Algebraic Fractions	
		Forming and Solving Quadratic Equations (Formula)	Rearranging Formulae with Algebraic Fractions	

Unit 21

Sine Rule - Sides
 Sine Rule - Angles
 Ambiguous Sine Rule
 Cosine Rule - Sides
 Cosine Rule - Angles
 Mixed Sine Rule and Cosine Rule
 Area of Triangles
 Exact Trigonometric Values
 3D Pythagoras' Theorem
 3D Right-Angled Trigonometry
 3D Non Right-Angled Trigonometry
 Bearings with Parallel Lines
 Drawing and Measuring Bearings
 Bearings without Trigonometry
 Bearings with Trigonometry
 Ratios to Linear Equations
 Four Part Ratios
 Changing Ratios
 Subdividing Ratios

Unit 22

Similarity with Area and Volume
 Similarity with Ratios
 Similarity with Map Scales
 Harder Similarity
 Arc Length of Sectors
 Perimeter of Sectors
 Perimeter of Segments
 Area of Sectors
 Mixed Area and Perimeter of Sectors
 Area of Segments
 Volume of Spheres
 Surface Area of Spheres
 Mixed Volume and Surface Area of Spheres
 Volume of Pyramids
 Surface Area of Pyramids
 Volume of Cones
 Surface Area of Cones
 Mixed Volume and Surface Area of Cones
 Volume of Frustums
 Surface Area of Frustums
 Volume and Surface Area of Composite Shapes
 Venn Diagrams with Sets
 Notation
 Cardinality of Sets
 Venn Diagrams with Frequencies
 Venn Diagrams with Conditional Probability
 Frequency Trees
 Tree Diagrams with Replacement
 Tree Diagrams without Replacement
 Harder Tree Diagrams
 Tree Diagrams with Algebra
 Capture-Recapture

Unit 23

Completing the Square - Monic
 Completing the Square - Non-Monic
 Solving Quadratic Equations by Completing the Square
 Composite Functions
 Solving Equations with Functions
 Intercepts of Quadratic Graphs
 Sketching Quadratic Graphs with intercepts
 Turning Point
 Sketching Quadratic Graphs with Turning Point
 Equation of Quadratic Graphs
 Quadratic Inequalities - Monic
 Quadratic Inequalities - Non-Monic
 Harder Quadratic Inequalities
 Conversion Graphs
 Distance-Time Graphs
 Speed-Time Graphs
 Gradient of Curves
 Area under Curves
 Iterations

Unit 24

Equation of Circles
 Equation of Circles with Area and Perimeter
 Equation of Tangents
 Harder Equations of Tangents
 Quadratic Simultaneous Equations
 Forming and Solving Quadratic Simultaneous Equations
 Geometric Sequences
 Harder Geometric Sequences
 Quadratic Sequences
 Harder Quadratic Sequences
 Algebraic Proof
 Harder Algebraic Proof
 Identities
 Vectors
 Parallel Vectors
 Collinear Vectors
 Vector Proofs

Unit 25

Exponential Graphs
 Trigonometric Graphs
 Solving Equations using Trigonometric Graphs
 Graph Transformations
 Graph Transformations with Trigonometric Graphs
 Equations of Transformed Graphs
 Congruent Shapes
 Congruent Triangle Proofs
 Similar Triangle Proofs
 Circle Theorem Proofs