Maths GCSE Topics (By grade)

Grades 9-4-Higher; Grades 5-1 – Foundation

Grade	8	/9
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Quadratic Simultaneous Equations

<u>Transforming Graphs y=f(x)</u>

Proof

Completing the Square

The Nth Term of a Quadratic Sequence

Quadratic Inequalities

Velocity Time Graphs

Proof of the Circle Theorems

Perpendicular Lines and the equation of a tangent

Vectors Proof Questions

Probability Equation Questions

Grade 7

Surds

Bounds

Direct and Inverse Proportion

Quadratic Formula

Factorising Harder Quadratics

Algebraic Fractions

Rearranging Harder Formulae

Trigonometric and Exponential Graphs

Inverse and Composite Functions

Iteration

Finding the Area of Any Triangle

The Sine Rule

The Cosine Rule

Congruent Triangles

3d Pythagoras and Trigonometry

<u>Histograms</u>

Conditional Probability

Grade 6

Recurring Decimals to Fractions

Fractional and Negative Indices

The Product Rule for Counting

Repeated Percentage Change

Expanding Triple Brackets

Parallel and Perpendicular Lines

Inequalities on Graphs

Similar Shapes (Area and Volume)

Enlarging with Negative Scale Factors

Circle Theorems

Cumulative Frequency

Box Plots

Capture Recapture

Grade 5

Writing a Ratio as a Fraction or Linear Function

<u>Direct and Inverse Proportion</u>

Reverse Percentages

Standard Form

Speed and Density

Changing the Subject of a Formula

Expanding and Factorising Quadratics

Solving Quadratics

Drawing Quadratic Graphs

Drawing Other Graphs: Cubic/Reciprocal

Simultaneous Equations

Solving Simultaneous Equations Graphically

Midpoint of a Line Segment

Gradient of a Line

Equation of a Line

Spheres and Cones

Sector Areas and Arc Lengths

Similar Shapes (Lengths)

SOHCAHTOA (Trigonometry)

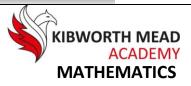
Exact trig values

<u>Vectors</u>

Probability Trees

<u>Venn Diagrams</u>





Maths GCSE Topics (By grade)

Grades 9-4-Higher; Grades 5-1 – Foundation

Grade 4	<u>Grade 3</u>
Compound Interest and Depreciation	<u>Error Intervals</u>
Indices	<u>Fractions</u>
Prime Factors, HCF and LCM	<u>Estimating</u>
Real Life and Distance Time Graphs	Writing and Simplifying Ratio
<u>Inequalities</u>	Ratio
Forming and Solving Equations	<u>Proportion</u>
Sequences (Nth Term)	<u>Percentages</u>
Expanding and Factorising	Percentage Change
	Exchange Rates
Pythagoras	Conversions and Units
<u>Angles in Parallel Lines</u>	Scale Drawings
Angles in Polygons	Best Buy Questions
Surface Area	Substitution
Volume of a Prism	<u>Solving Equations</u>
Cylinders	<u>Drawing Graphs</u>
Loci and Construction	Area and Circumference of Circ
<u>Bearings</u>	<u>Transformations</u> Rotations
	Reflections Enlargements
<u>Plans and Elevations</u>	<u>Translations</u> Mixed Transformations
Averages from Frequency Tables	Area of Compound Shapes
<u>Probability</u>	
Scatter Graphs	Frequency Trees
	<u>Two Way Tables</u>





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Grades 9-4-Higher; Grades 5-1 – Foundation

Grade 2	Grade 1
<u>Calculation Problems</u>	Addition and Subtraction
<u>Using a Calculator</u>	Multiplication and Division
<u>Systematic Listing</u>	Time
<u>Fractions of an Amount</u>	
Fractions, Decimals and Percentages	Writing, Simplifying and Ordering Fractions
Simplifying Algebra	<u>Place Value</u>
Writing an Expression	Rounding
<u>Function Machines</u>	Negative Numbers
Solving One Step Equations	<u>Powers and Roots</u>
Angles	BIDMAS
Area and Perimeter	Factors and Multiples
<u>Probability</u>	
Frequency Polygons	<u>Coordinates</u>
<u>Averages</u>	<u>Pictograms</u>
Bar Charts	
Stem and Leaf	
<u>Pie Charts</u>	



