

GCSE Foundation Maths Checklist



Use this checklist to keep track of what topics you've done and how confident you feel with each of them.





✓	Essential Maths Skills			
	Place Value and Ordering Integers			
	Calculator Skills			
	Rounding to Decimal Places			
	Rounding Integers to Significant Figures			
	Rounding Decimals to Significant Figures			
	Estimation and Approximation			
	Rounding Errors			
	Standard Form			
	Calculations Involving Standard Form			





✓	Types of Numbers			
	Factors, Multiples and Primes			
	Prime Factors			
	Highest Common Factor			
	Lowest Common Multiple			
	Index Laws: Positive Powers			
	Index Laws: Negative and Fractional Powers			
	Index Laws: Square and Cube Roots			





✓	Decimals & Fractions			
	Comparing Decimals			
	Calculations Involving Comparing Decimals			
	Adding and Subtracting Decimals			
	Multiplying Decimals with Integers			
	Multiplying Decimals with Decimals			
	Dividing Decimals by Integers			
	Dividing Decimals by Decimals			
	Equivalent Fractions			
	Adding and Subtracting Fractions			
	Finding Fractions of Other Numbers			



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	Simplifying Expressions			
	Collecting Like Terms			
	Multiplying and Dividing Expressions			
	Expanding Single Brackets			
	Expanding Double Brackets			
	Factorising Simple Expressions			
	Factorising Quadratics in the Form $x^2 + bx + c$			
	Factorising Quadratics in the Form $x^2 - bx + c$			
	Factorising Quadratics in the Form $x^2 + bx - c$			
	Factorising Quadratics in the Form $x^2 - bx - c$			
	Proofs and Identities			





	Solving Expressions & Equations			
	Solving Expressions using Substitution			
	Solving Equations using Formulas and Substitution			
	Changing the Subject of Equations			
	Solving Linear Equations in the Form $ax + b = c$			
	Solving Linear Equations in the Form $ax + b = cx + d$			
	Solving Linear Equations Involving Brackets			
	Solving Linear Equations Involving Fractions			
	Solving Quadratic Equations			
	Solving Simultaneous Equations			





	Inequalities & Sequences			
	Representing Inequalities on Number Lines			
	Solving Positive Inequalities			
	Solving Negative Inequalities			
	Solving Bounded Inequalities			
	Finding Missing Terms in Sequences			
	Generating Sequences using Rules			
	Generating Sequences using Nth Terms			
	Identifying Arithmetic Sequences			
	Finding Nth Terms for Arithmetic Sequences			
	Identifying Geometric Sequences			



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 Graphs			
Plotting Straight Line Graphs using Tables of Values			
Calculating Gradients of Straight Line Graphs			
Finding Equations of Straight Line Graphs			
Plotting Straight Line Graphs using $y = mx + c$			
Plotting Quadratic Graphs			
Solving Quadratic Equations using Graphs			
Plotting Cubic and Reciprocal Graphs			
Interpreting Real Life Graphs			
Interpreting Distance-Time Graphs			
Interpreting and Calculating with Distance-Time Graphs			




 Ratios & Proportions			
Calculating Ratios			
Calculating Proportions			
Inverse Proportions			
Calculating Compound Interest			
Calculating Percentage Increases and Decreases			
Calculating Reverse Percentages			




 Measurements			
Reading Scales			
Interpreting Scales and Drawing Bearings			
Converting Metric Units			
Calculating Speed, Density and Pressure			
Converting Units for Area and Volume			



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✓	Shapes & Angles			
	Naming Angles and Angles on Straight Lines or Around a Point			
	Calculating Alternate, Corresponding and Co-Interior Angles			
	Quadrilaterals, Triangles and Polygons			
	Calculating Internal Angles			
	Calculating Interior and External Angles of Polygons			
	Calculating Interior and External Angles of Regular Polygons			
	Constructions of Shapes			
	Pythagoras' Theorem			
	Calculating Lengths of Line Segments			
	Trigonometric Ratios: Calculating Angles			
	Trigonometric Ratios: Calculating Side Lengths			
	Trigonometric Ratios: Exact Trigonometric Values			





✓	Perimeters, Areas & Volumes			
	Perimeters of Composite Shapes			
	Perimeters of Circles			
	Areas of Triangles and Rectangles			
	Area of Circles and Sectors			
	Areas of Parallelograms and Trapeziums			
	Plans and Elevations of 3D Shapes			
	Volumes of Spheres, Cones, Frustums and Pyramids			

✓	Transformations & Similarity			
	Reflections			
	Rotations			
	Enlargements			
	Translations			
	Combination of Transformations			
	Calculating with Column Vectors			
	Calculating with Vectors Visually			
	Similar Shapes			
	Areas and Volumes of Similar Shapes			
	Congruency			



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 Probability			
Probability Basics			
Mutually Exclusive Events			
Listing Outcomes of Events			
Expectation and Relative Frequency			
Venn Diagrams			
Probability Tree Diagrams			
The AND/ OR Rules			

 Statistics			
Data Collection and Questionnaires			
Sampling and Bias			
Averages and Range			
Averages and Ranges from Frequency Tables			
Averages from Grouped Frequency Tables			
Bar Charts and Pictograms			
Pie Charts			
Scatter Graphs and Lines of Best Fit			

Found some GCSE Maths topics that you need to brush up on?

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