Extra Content for Foundation GCSE



	Category	GCSE Maths Topics
71	Numbers & Arithmetic	Understanding Mathematical Symbols (=, ,≤, <, , ≥, >, ,≠)
72	Numbers & Arithmetic	Using Reverse Calculations to Check Answers
73	Numbers & Arithmetic	Simplifying Fractions Using Cancellation
74	Numbers & Arithmetic	Understanding Powers and Roots
75	Numbers & Arithmetic	Using Reciprocals in Calculations
76	Numbers & Arithmetic	Prime Numbers and Their Properties
77	Numbers & Arithmetic	Writing Numbers as Products of Prime Factors
78	Numbers & Arithmetic	Finding the Highest Common Factor (HCF) Using Prime Factorization
79	Numbers & Arithmetic	Finding the Lowest Common Multiple (LCM) Using Prime Factorization
80	Numbers & Arithmetic	Systematic Listing Strategies
81	Numbers & Arithmetic	Square Numbers and Their Roots
82	Numbers & Arithmetic	Cube Numbers and Their Roots
83	Numbers & Arithmetic	Working with π (Pi) in Calculations
84	Numbers & Arithmetic	Understanding and Using Standard Index Form
85	Numbers & Arithmetic	Converting Between Fractions and Ratios
86	Numbers & Arithmetic	Rounding Numbers to an Appropriate Degree of Accuracy
87	Algebra	Basic Algebraic Manipulation (a x b = ab, a + a = $2a$, a^2 , etc.)
88	Algebra	Writing Coefficients as Fractions
89	Algebra	Factorising Expressions with a Single Bracket
90	Algebra	Factorising Quadratics with x ² Coefficient of 1
91	Algebra	Using the Difference of Two Squares to Factorise
92	Algebra	Simplifying Expressions Using the Laws of Indices
93	Algebra	Rearranging Formulae to Change the Subject
94	Algebra	Equations vs Identities: Understanding the Difference
95	Algebra	Recognising Equivalent Expressions to Set Up Equations
96	Algebra	Solving Linear Equations Algebraically and Graphically
97	Algebra	Solving Quadratic Equations Algebraically and Graphically
98	Algebra	Solving Simultaneous Equations Algebraically and Graphically
99	Algebra	Setting Up and Solving Simultaneous Equations in Real-Life Problems
100	Algebra	Solving Linear Inequalities and Representing Solutions on a Graph/ Number Line
101	Algebra	Generating Sequences from Term-to-Term and Position-to-Term Rules
102	Algebra	Finding the nth Term of a Sequence
103	Algebra	Recognising Special Sequences (Triangle, Square, Cube, Fibonacci)
104	Algebra	Understanding Ratios and Using Cross Multiplication
105	Algebra	Using Density, Pressure, and Speed-Distance-Time Formulas

Extra Content for Foundation GCSE



	Category	GCSE Maths Topics
106	Graphs & Proportion	Plotting Straight Line Graphs $(y = mx + c)$
107	Graphs & Proportion	Understanding Parallel Line Equations
108	Graphs & Proportion	Interpreting Gradients Graphically and Algebraically
109	Graphs & Proportion	Key Features of Quadratic Graphs (Roots, Intercepts, Turning Points)
110	Graphs & Proportion	Understanding Speed-Time Graphs and Connections to Acceleration, Speed, and Distance
111	Graphs & Proportion	Interpreting the Gradient of a Graph as a Rate of Change
112	Graphs & Proportion	Recognising Graphs That Represent Direct and Inverse Proportion
113	Graphs & Proportion	Comparing Lengths, Areas, and Volumes Using Ratios
114	Geometry & Trigonometry	Interior and Exterior Angles of Polygons
115	Geometry & Trigonometry	Angle Facts - Parallel Lines
116	Geometry & Trigonometry	Properties of Quadrilaterals and Special Triangles
117	Geometry & Trigonometry	Congruence Tests (SAS, ASA, SSS) and Similarity
118	Geometry & Trigonometry	Applying Pythagoras' Theorem
119	Geometry & Trigonometry	Understanding and Using SOH-CAH-TOA in Trigonometry
120	Geometry & Trigonometry	Exact Values for sin, cos, and tan
121	Geometry & Trigonometry	Describing and Representing Translations as Vectors
122	Geometry & Trigonometry	Adding, Subtracting, and Multiplying Vectors by a Scalar
123	Geometry & Trigonometry	Transformations: Roation, Reflection and Translation
124	Geometry & Trigonometry	Transformations: Enlargement
125	Geometry & Trigonometry	Measuring Lines, Angles, and Bearings
126	Geometry & Trigonometry	Calculating the Area of Parallelograms and Trapeziums
127	Geometry & Trigonometry	Calculating Arc Lengths, Angles, and Areas of Sectors
128	Geometry & Trigonometry	Applying Concepts of Congruency and Similarity to Solve Length Problems
129	Geometry & Trigonometry	Constructing Geometric Shapes and Bisectors
130	Geometry & Trigonometry	Identifying Properties of 3D Shapes (Cubes, Prisms, Cylinders, Pyramids, Cones, Spheres)
131	Probability & Data	Recording Outcomes Using Sample Space Diagrams
132	Probability & Data	Understanding Experimental Probability and Relative Frequency
133	Probability & Data	Mutually Exclusive Events and Probabilities Summing to 1
134	Probability & Data	Theoretical vs Experimental Probability
135	Probability & Data	Constructing Venn diagram for Probability
136	Probability & Data	Using Probability Tree Diagrams for Dependent Events
137	Probability & Data	Creating and Interpreting Charts (Bar, Pie, Line, Pictograms)
138	Probability & Data	Making Frequency Tables and Vertical Line Graphs for Time Series
139	Number & Arithmetic	Data Adding and Subtracting with Negative Numbers
140	Number & Arithmetic	Multiplying and Dividing with Negative Numbers