

Checklist (GCSE Foundation)

Below is a list of all of the available topics and links that are relevant to GCSE Foundation.

(These are in addition to consolidating subject content from Key Stage 3).

YOU MUST LOG IN TO www.teachusmaths.com FIRST TO BE ABLE TO ACCESS THE 'LESSON' AND 'WORKSHEET' LINKS

Each topic is also colour coded...

Green for approx. GCSE grades 1-3

Blue for approx. GCSE grades 4&5

NUMBER

INTEGERS				☆☆☆
N 1.1 Adding Integers	Lesson	Worksheet	Video	
N 1.2 Subtracting Integers	Lesson	Worksheet	Video	
N 1.3 Multiplying Integers	Lesson	Worksheet	Video	
N 1.4 Dividing Integers	Lesson	Worksheet	Video	
N 1.5 Order of Operations	Lesson	Worksheet	Video	
N 1.6 Prime Numbers & Prime Factor Decomposition	Lesson	Worksheet	Video	
N 1.7 Factors & Highest Common Factor (HCF)	Lesson	Worksheet	Video	
N 1.8 Multiples & Lowest Common Multiple (LCM)	Lesson	Worksheet	Video	
NEGATIVE NUMBERS				
N 2.1 Adding & Subtracting Negative Numbers	Lesson	Worksheet	Video	
N 2.2 Multiplying & Dividing Negative Numbers	Lesson	Worksheet	Video	
DECIMALS				
N 3.1 Place Value & Ordering Decimals	Lesson	Worksheet	Video	
N 3.2 Multiplying & Dividing by 10, 100, 1000	Lesson	Worksheet	Video	
N 3.3 Adding & Subtracting Decimals	Lesson	Worksheet	Video	
N 3.4 Multiplying Decimals	Lesson	Worksheet	Video	
N 3.5 Dividing Decimals	Lesson	Worksheet	Video	

N 3.6 Related Calculations	Lesson	Worksheet	Video	
FRACTIONS				
N 4.1 Equivalent Fractions	Lesson	Worksheet	Video	
N 4.2 Mixed Numbers & Improper Fractions	Lesson	Worksheet	Video	
N 4.3 Ordering Fractions	Lesson	Worksheet	Video	
N 4.4 Adding & Subtracting Fractions	Lesson	Worksheet	Video	
N 4.5 Multiplying Fractions	Lesson	Worksheet	Video	
N 4.6 Dividing Fractions	Lesson	Worksheet	Video	
N 4.7 Fractions of an Amount	Lesson	Worksheet	Video	
FRACTIONS, DECIMALS & PERCENTAGES				
N 5.1 Converting between Fractions, Decimals & Percentages	Lesson	Worksheet	Video	
N 5.2 Ordering Fractions, Decimals & Percentages	Lesson	Worksheet	Video	
PERCENTAGES				
N 6.1 Expressing One Quantity as a Percentage of Another	Lesson	Worksheet	Video	
N 6.2 Percentages of an Amount (Non - Calculator)	Lesson	Worksheet	Video	
N 6.3 Percentages of an Amount (Calculator)	Lesson	Worksheet	Video	
N 6.4 Percentage Increase / Decrease	Lesson	Worksheet	Video	
N 6.5 Percentage Change	Lesson	Worksheet	Video	
N 6.6 Reverse Percentages	Lesson	Worksheet	Video	
N 6.7 Compound Interest *	Lesson	Worksheet	Video	
ROUNDING				
N 7.1 Rounding - Nearest 10, 100, 1000	Lesson	Worksheet	Video	
N 7.2 Rounding - Nearest Whole Number & Decimal Places	Lesson	Worksheet	Video	
N 7.3 Rounding - Significant Figures	Lesson	Worksheet	Video	
N 7.4 Truncating	Lesson	Worksheet	Video	
N 7.5 Estimation	Lesson	Worksheet	Video	
N 7.6 Error Intervals	Lesson	Worksheet	Video	
INDICES				
N 8.1 Indices - Squares, Cubes & Powers	Lesson	Worksheet	Video	
N 8.2 Laws of Indices	Lesson	Worksheet	Video	
STANDARD FORM				
N 9.1 Standard Form	Lesson	Worksheet	Video	
N 9.2 Calculating with Standard Form	Lesson	Worksheet	Video	
CALCULATIONS				
N 11.1 Using a Calculator	Lesson	Worksheet	Video	
N 11.2 Time	Lesson	Worksheet	Video	

N 11.3 Money	Lesson	Worksheet	Video	
N 11.4 Exchange Rates	Lesson	Worksheet	Video	

RATIO, PROPORTION & RATES OF CHANGE

RATIO				☆☆☆
R 1.1 Introduction to Ratio	Lesson	Worksheet	Video	
R 1.2 Simplifying Ratio	Lesson	Worksheet	Video	
R 1.3 Sharing in a Ratio	Lesson	Worksheet	Video	
R 1.4 Ratio Problems	Lesson	Worksheet	Video	
PROPORTION				
R 2.1 Introduction to Proportion	Lesson	Worksheet	Video	
R 2.2 Direct & Inverse Proportion	Lesson	Worksheet	Video	
COMPOUND MEASURES				
R 3.1 Speed	Lesson	Worksheet	Video	
R 3.2 Density	Lesson	Worksheet	Video	
R 3.3 Pressure	Lesson	Worksheet	Video	
REAL-LIFE GRAPHS				
R 4.1 Conversion Graphs	Lesson	Worksheet	Video	
R 4.2 Other Real-Life Graphs	Lesson	Worksheet	Video	
R 4.3 Distance-Time Graphs	Lesson	Worksheet	Video	

ALGEBRA

CO-ORDINATES				☆☆☆
A 1.1 Co-ordinates	Lesson	Worksheet	Video	
A 1.2 Midpoint of a Line	Lesson	Worksheet	Video	
LINEAR GRAPHS				
A 2.1 $x = a$, $y = b$ Graphs	Lesson	Worksheet	Video	
A 2.2 Plotting Linear Graphs ($y = mx + c$)	Lesson	Worksheet	Video	
A 2.3 Equations of Linear Graphs ($y = mx + c$)	Lesson	Worksheet	Video	
A 2.4 Using $y = mx + c$ to Draw Linear Graphs	Lesson	Worksheet	Video	
A 2.5 Using $y = mx + c$ to Solve Problems	Lesson	Worksheet	Video	

A 2.6 Using Gradients and Co-ordinates to find $y = mx + c$	Lesson	Worksheet	Video	
A 2.7 Parallel & Perpendicular Lines *	Lesson	Worksheet	Video	
ALGEBRA				
A 3.1 Algebraic Notation	Lesson	Worksheet	Video	
A 3.2 Collecting Like Terms	Lesson	Worksheet	Video	
A 3.3 Multiplying Terms	Lesson	Worksheet	Video	
A 3.4 Dividing Terms	Lesson	Worksheet	Video	
A 3.5 Expanding Single Brackets	Lesson	Worksheet	Video	
A 3.6 Factorising into Single Brackets	Lesson	Worksheet	Video	
A 3.7 Laws of Indices (Algebra)	Lesson	Worksheet	Video	
A 3.8 Function Machines	Lesson	Worksheet	Video	
A 3.9 Substitution	Lesson	Worksheet	Video	
A 3.10 Solving Linear Equations	Lesson	Worksheet	Video	
A 3.11 Solving Linear Equations (with the unknown on both sides)	Lesson	Worksheet	Video	
A 3.12 Changing the Subject	Lesson	Worksheet	Video	
QUADRATICS				
A 4.1 Expanding Double Brackets	Lesson	Worksheet	Video	
A 4.2 Factorising Quadratics	Lesson	Worksheet	Video	
A 4.5 Plotting Quadratic Graphs	Lesson	Worksheet	Video	
A 4.6 Solving Quadratics – Graphically	Lesson	Worksheet	Video	
A 4.8 Solving Quadratics – Factorising	Lesson	Worksheet	Video	
CUBICS				
A 5.2 Cubic Graphs	Lesson	Worksheet	Video	
OTHER GRAPHS				
A 6.1 Reciprocal Graphs	Lesson	Worksheet	Video	
INEQUALITIES				
A 7.1 Inequalities on a Number Line	Lesson	Worksheet	Video	
A 7.2 Solving Linear Inequalities	Lesson	Worksheet	Video	
SIMULTANEOUS EQUATIONS				
A 9.1 Simultaneous Equations – Linear	Lesson	Worksheet	Video	
SEQUENCES				
A 10.1 Linear Sequences	Lesson	Worksheet	Video	
A 10.3 Geometric & Fibonacci Sequences	Lesson	Worksheet	Video	
PROOF				
A 13.1 Algebraic Proof *	Lesson	Worksheet	Video	

GEOMETRY

SHAPES				☆☆☆
G 1.1 2D Shapes – Properties	Lesson	Worksheet	Video	
G 1.2 Symmetry	Lesson	Worksheet	Video	
G 1.3 3D Shapes – Properties	Lesson	Worksheet	Video	
G 1.4 Plans & Elevations	Lesson	Worksheet	Video	
PERIMETER & AREA				
G 2.1 Perimeter	Lesson	Worksheet	Video	
G 2.2 Area of Rectangles	Lesson	Worksheet	Video	
G 2.3 Area of Parallelograms	Lesson	Worksheet	Video	
G 2.4 Area of Triangles	Lesson	Worksheet	Video	
G 2.5 Area of Trapezia	Lesson	Worksheet	Video	
CIRCLES				
G 3.1 Circumference	Lesson	Worksheet	Video	
G 3.2 Arc Length	Lesson	Worksheet	Video	
G 3.3 Area of Circles	Lesson	Worksheet	Video	
G 3.4 Area of Sectors	Lesson	Worksheet	Video	
SURFACE AREA & VOLUME				
G 4.1 Surface Area - Prisms & Cylinders	Lesson	Worksheet	Video	
G 4.2 Surface Area – Spheres, Pyramids & Cones	Lesson	Worksheet	Video	
G 4.3 Volume - Prisms & Cylinders	Lesson	Worksheet	Video	
G 4.4 Volume – Spheres, Pyramids & Cones	Lesson	Worksheet	Video	
UNITS				
G 5.1 Reading Scales	Lesson	Worksheet	Video	
G 5.2 Converting Metric Units	Lesson	Worksheet	Video	
G 5.3 Converting Units - Area/Volume	Lesson	Worksheet	Video	
ANGLES				
G 6.1 Angles - Types, Measure & Draw	Lesson	Worksheet	Video	
G 6.2 Calculating Angles - Straight Lines & Full Turns	Lesson	Worksheet	Video	
G 6.3 Calculating Angles - Parallel Lines	Lesson	Worksheet	Video	
G 6.4 Calculating Angles – Triangles	Lesson	Worksheet	Video	
G 6.5 Calculating Angles – Polygons	Lesson	Worksheet	Video	
G 6.6 Bearings	Lesson	Worksheet	Video	
CONSTRUCTIONS				
G 7.1 Perpendicular Bisector & Angle Bisector	Lesson	Worksheet	Video	

G 7.2 Loci	Lesson	Worksheet	Video	
G 7.3 Constructing Triangles	Lesson	Worksheet	Video	
CONGRUENCE & SIMILARITY				
G 8.1 Congruence	Lesson	Worksheet	Video	
G 8.2 Similarity *	Lesson	Worksheet	Video	
TRANSFORMATIONS				
G 9.1 Reflection	Lesson	Worksheet	Video	
G 9.2 Rotation	Lesson	Worksheet	Video	
G 9.3 Translation	Lesson	Worksheet	Video	
G 9.4 Enlargement	Lesson	Worksheet	Video	
PYTHAGORAS & TRIGONOMETRY				
G 10.1 Pythagoras' Theorem	Lesson	Worksheet	Video	
G 10.2 Trigonometry – Introduction	Lesson	Worksheet	Video	
G 10.3 Trigonometry – Further	Lesson	Worksheet	Video	
G 10.4 Trigonometry - Exact Values	Lesson	Worksheet	Video	
VECTORS				
G 11.1 Vectors	Lesson	Worksheet	Video	

STATISTICS

DATA COLLECTION				☆☆☆
S 1.1 The Data Handling Cycle & Questionnaires	Lesson	Worksheet	Video	
S 1.2 Sampling & Capture, Recapture *	Lesson	Worksheet	Video	
S 1.3 Types of Data	Lesson	Worksheet	Video	
S 1.4 Tally Charts	Lesson	Worksheet	Video	
S 1.5 Two - Way Tables	Lesson	Worksheet	Video	
AVERAGES				
S 2.1 Mean, Median, Mode, Range	Lesson	Worksheet	Video	
S 2.2 Averages from a Table	Lesson	Worksheet	Video	
CHARTS & GRAPHS				
S 3.1 Pictograms & Bar Charts	Lesson	Worksheet	Video	
S 3.2 Pie Charts	Lesson	Worksheet	Video	
S 3.3 Stem & Leaf Diagrams	Lesson	Worksheet	Video	
S 3.4 Frequency Polygons	Lesson	Worksheet	Video	
S 3.5 Time Series	Lesson	Worksheet	Video	

S 3.6 Scatter Graphs	Lesson	Worksheet	Video	
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PROBABILITY

PROBABILITY				☆☆☆
P 1.1 Basic Probability	Lesson	Worksheet	Video	
P 1.2 Relative Frequency	Lesson	Worksheet	Video	
COMBINED PROBABILITY				
P 2.1 Listing Outcomes, Sample Spaces & Frequency Trees	Lesson	Worksheet	Video	
P 2.2 Tree Diagrams *	Lesson	Worksheet	Video	
P 2.3 Venn Diagrams	Lesson	Worksheet	Video	

* Only some of the questions covered in this topic appear at this level. The harder questions are more likely to appear at a higher level.