

# Checklist (GCSE H)

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

YOU MUST LOG IN TO [www.teachusmaths.com](http://www.teachusmaths.com) FIRST TO BE ABLE TO ACCESS THE 'LESSON' AND 'WORKSHEET' LINKS

Each topic is also colour coded...

Blue for approx. GCSE grades 4&5

Purple for approx. GCSE grades 6-9

## NUMBER

INTEGERS				☆☆☆
N 1.6 Prime Numbers & Prime Factor Decomposition	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 1.7 Factors & Highest Common Factor (HCF)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 1.8 Multiples & Lowest Common Multiple (LCM)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
FRACTIONS				
N 4.3 Ordering Fractions	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 4.4 Adding & Subtracting Fractions	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
FRACTIONS, DECIMALS & PERCENTAGES				
N 5.3 Recurring Decimals	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
PERCENTAGES				
N 6.5 Percentage Change	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 6.6 Reverse Percentages	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 6.7 Compound Interest	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
ROUNDING				
N 7.4 Truncating	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 7.5 Estimation	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 7.6 Error Intervals	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 7.7 Calculating with Upper & Lower Bounds	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
INDICES				

N 8.2 Laws of Indices	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 8.3 Fractional Indices	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>STANDARD FORM</b>				
N 9.1 Standard Form	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 9.2 Calculating with Standard Form	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>SURDS</b>				
N 10.1 Surds	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
N 10.2 Rationalising the Denominator	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>CALCULATIONS</b>				
N 11.1 Using a Calculator	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

## RATIO, PROPORTION & RATES OF CHANGE

<b>RATIO</b>				☆☆☆
R 1.3 Sharing in a Ratio	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
R 1.4 Ratio Problems	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>PROPORTION</b>				
R 2.2 Direct & Inverse Proportion	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
R 2.3 Direct Proportion (Algebra)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
R 2.4 Inverse Proportion (Algebra)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>COMPOUND MEASURES</b>				
R 3.2 Density	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
R 3.3 Pressure	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>REAL-LIFE GRAPHS</b>				
R 4.2 Other Real-Life Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
R 4.4 Speed-Time Graphs (Straight Lines)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
R 4.5 Speed-Time Graphs (Curves)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

## ALGEBRA

<b>CO-ORDINATES</b>				☆☆☆
A 1.2 Midpoint of a Line	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 1.3 3D Co-ordinates	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>LINEAR GRAPHS</b>				
A 2.3 Equations of Linear Graphs ( $y = mx + c$ )	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 2.4 Using $y = mx + c$ to Draw Linear Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

A 2.5 Using $y = mx + c$ to Solve Problems	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 2.6 Using Gradients and Co-ordinates to find $y = mx + c$	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 2.7 Parallel & Perpendicular Lines	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>ALGEBRA</b>				
A 3.6 Factorising into Single Brackets	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 3.7 Laws of Indices (Algebra)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 3.11 Solving Linear Equations (with the unknown on both sides)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 3.12 Changing the Subject	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 3.13 Changing the Subject (Advanced)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>QUADRATICS</b>				
A 4.1 Expanding Double Brackets	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.2 Factorising Quadratics	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.3 Factorising Quadratics (Advanced)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.4 Completing the Square	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.5 Plotting Quadratic Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.6 Solving Quadratics - Graphically	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.7 Solving Quadratics - Graphically (Advanced)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.8 Solving Quadratics - Factorising	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.9 Solving Quadratics - Factorising (Advanced)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.10 Solving Quadratics - Quadratic Formula	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.11 Solving Quadratics - Completing the Square	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.12 Solving Quadratics - All Methods	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 4.13 Sketching Quadratic Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>CUBICS</b>				
A 5.1 Expanding Triple Brackets	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 5.2 Cubic Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>OTHER GRAPHS</b>				
A 6.1 Reciprocal Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 6.2 Exponential Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 6.3 Equations of Tangents to Circles	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 6.4 Trigonometric Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 6.5 Transformations of Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>INEQUALITIES</b>				
A 7.1 Inequalities on a Number Line	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 7.2 Solving Linear Inequalities	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 7.3 Solving Linear Inequalities Graphically	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

A 7.4 Solving Quadratic Inequalities	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>ITERATION</b>				
A 8.1 Trial & Improvement	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 8.2 Iteration	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>SIMULTANEOUS EQUATIONS</b>				
A 9.1 Simultaneous Equations - Linear	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 9.2 Simultaneous Equations – Non-Linear	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>SEQUENCES</b>				
A 10.1 Linear Sequences	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 10.2 Quadratic Sequences	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 10.3 Geometric & Fibonacci Sequences	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>ALGEBRAIC FRACTIONS</b>				
A 11.1 Algebraic Fractions - Simplify	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 11.2 Algebraic Fractions - Add/Subtract	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
A 11.3 Algebraic Fractions - Multiply/Divide	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>FUNCTIONS</b>				
A 12.1 Functions	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>PROOF</b>				
A 13.1 Algebraic Proof	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

## GEOMETRY

<b>CIRCLES</b>				☆☆☆
G 3.2 Arc Length	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 3.4 Area of Sectors	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>SURFACE AREA &amp; VOLUME</b>				
G 4.1 Surface Area - Prisms & Cylinders	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 4.2 Surface Area – Spheres, Pyramids & Cones	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 4.4 Volume – Spheres, Pyramids & Cones	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>UNITS</b>				
G 5.3 Converting Units - Area/Volume	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>ANGLES</b>				
G 6.6 Bearings	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>CONSTRUCTIONS</b>				
G 7.1 Perpendicular Bisector & Angle Bisector	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 7.2 Loci	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

<b>CONGRUENCE &amp; SIMILARITY</b>				
G 8.1 Congruence	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 8.2 Similarity	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>TRANSFORMATIONS</b>				
G 9.4 Enlargement	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 9.5 Enlargement (Negative Scale Factors)	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>PYTHAGORAS &amp; TRIGONOMETRY</b>				
G 10.1 Pythagoras' Theorem	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 10.2 Trigonometry – Introduction	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 10.3 Trigonometry – Further	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 10.4 Trigonometry - Exact Values	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 10.5 Sine Rule	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 10.6 Cosine Rule	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 10.7 Area of a Triangle	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>VECTORS</b>				
G 11.1 Vectors	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>CIRCLE THEOREMS</b>				
G 12.1 Circle Theorems	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
G 12.2 Further Circle Theorems	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

## STATISTICS

<b>DATA COLLECTION</b>				☆☆☆
S 1.2 Sampling & Capture, Recapture	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>AVERAGES</b>				
S 2.2 Averages from a Table	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>CHARTS &amp; GRAPHS</b>				
S 3.6 Scatter Graphs	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
S 3.7 Cumulative Frequency Diagrams	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
S 3.8 Box Plots	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
S 3.9 Histograms	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

## PROBABILITY

<b>PROBABILITY</b>				☆☆☆
P 1.2 Relative Frequency	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	

<b>COMBINED PROBABILITY</b>				
<b>P 2.1 Listing Outcomes, Sample Spaces &amp; Frequency Trees</b>	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>P 2.2 Tree Diagrams</b>	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>P 2.3 Venn Diagrams</b>	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	
<b>P 2.4 Product Rule for Counting</b>	<a href="#">Lesson</a>	<a href="#">Worksheet</a>	<a href="#">Video</a>	