

KS4 Learning Journey
GCSE Foundation Tier – Year 11 Learning Cycle 1

Please watch the video on www.corbettmaths.com for each topic.

Advanced Percentages	Video number
Solve reverse percentage problems	240
Solve growth and decay problems including compound interest	236

Sampling & Scatters	Video number
Infer properties of populations from a sample whilst knowing the limitations of sampling	282
Use statistics to describe a population	
Use and interpret scatter graphs	165,166
Recognise correlation and understand that it does not indicate causation	168
Draw lines of best fit and use them to make predictions	167

Simultaneous Equations	Video number
Solve simultaneous equations algebraically	295
Construct two simultaneous equations, solve them and interpret them	295
Find approximate solutions from a graph	297

Area & Volume	Video number
Area of triangles	49
Area of parallelograms	44
Area of trapezia	48
Area of circles	40
Identify properties of the faces, surfaces, edges and vertices of 3D shapes	5
Volume of cuboids	355
Volume of prisms	356
Volume of cylinders	357

Trigonometry	Video number
Use trigonometry to find lengths in right-angled triangles	330
Use trigonometry to find angles in right-angled triangles	331
Know the exact values of $\sin x$, $\cos x$ and $\tan x$ for $x = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ and 90°	341

Standard Form	Video number
Write numbers in standard form	300
Add numbers given in standard form	301
Multiply numbers given in standard form	302
Divide numbers given in standard form	303

Inequalities	Video number
Interpret inequalities	176
Solve simple inequalities	178
Represent inequalities on a number line	177

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GCSE Foundation Tier – Year 11 Learning Cycle 2

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Other Graphs	Video number
Recognise, sketch and interpret cubic graphs	344
Recognise, sketch and interpret reciprocal graphs	346

Advanced Probability	Video number
Use and construct sample space diagrams to work out specific probabilities	246
Read, use and construct two way tables and work out specific probabilities	319
Use and interpret Venn diagrams and work out specific probabilities	380
Use and construct tree diagrams to work out probabilities of two events	252
Calculate the probability of independent and dependent combined events	249

3D Shapes	Video number
Construct and interpret plans and elevations of 3D shapes	354
Calculate surface area of a sphere	313
Calculate volume of a sphere	361
Calculate volume of a pyramid	360
Calculate volume of a cone	359
Calculate surface area of a cone	314

Kinematics	Video number
Plot and interpret graphs in real contexts	160
Plot and interpret distance-time graphs	171
Know that the gradient of a distance-time graph represents speed	
Plot and interpret speed-time graphs	
Know that the gradient of a speed-time graph represents acceleration	
Calculate the distance travelled by calculating the area under a speed-time graph (made up of triangles and rectangles or trapezia)	389
Calculate speed using $\text{speed} = \text{distance} \div \text{time}$	299

KS4 Learning Journey
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Please watch the video on www.corbettmaths.com for each topic.

Vectors	Video number
Add and subtract vectors	353
Multiply vectors by a scalar	
Represent vectors in diagrams and columns	353a

Algebra Problems	Video number
Argue mathematically to show algebraic expressions are equivalent	
Use algebra to support and construct arguments to include proof	365

Proof	Video number
Apply angle facts, triangle congruence and similarity to obtain simple proofs	
Understand Pythagoras' theorem and the fact that the base angles of an isosceles triangle are equal, and use known results to obtain simple proofs	