Suggested Topics for Edexcel GCSE Maths Paper 3 Higher June 2017

Number	
BIDMAS (brackets)	
Interpret calculator displays	
Compare fractions, decimals and percentages	
Fractions and ratio problems	
Reverse fraction of an amount	
Multiples, factors, LCM and HCF and primes	
Upper and lower bounds calculation	
Simplify and manipulate surds	

Geometry and Measures	
Geometrical questions (alternate / corresponding angles) and angles in polygons	
Area of a parallelogram and trapezium	
Perimeter and area of composite shapes	
Circumference and area of a circle	
Calculations using exact Pi	
Arc length	
Surface area and volume of a prism, pyramid, cone (not volume) and sphere	
Volume of a frustum	
Draw and identify transformations and combinations of transformations (not reflections)	
3D Pythagoras' theorem and trigonometry	
Standard constructions using a compass (including triangles)	
Loci	
Bearings	
Congruency and congruent triangles	
Circle theorems	
The Sine Rule	
The Cosine Rule (find angle)	
Vectors	

Algebra	
Form an expression, formulae or equation (then solve)	
Substitution ($v = u + at$; $s = ut + \frac{1}{2}at^2$; $v^2 = u^2 + 2as$)	
Midpoint and distance between two coordinates	
Simplify algebraic indices	
Expand single brackets	
nth term of a linear sequence	
Linear equations (including variable on both sides)	
Finding the equation of a line	
Linear simultaneous equations (algebraically and / or graphically)	
Factorise single bracket	
Factorising quadratic expressions including where a > 1	
Quadratic equations (including when needs re-arrangement)	
Recognise Fibonacci sequences	
Geometric Sequences	
Drawing quadratic graphs	
Rearranging Formulae (including when subject appears twice / factorising)	
Representing inequalities on a number line	
Solving linear inequalities	
Representing linear and quadratic inequalities graphically	
Solving quadratic inequalities	
The Quadratic Formula	
Completing the square and turning points	
Simultaneous equations (linear/quadratic) graphically	
Functions and composite and inverse functions	
General iterative processes	
Algebraic fractions (factorise / cancel common factors)	
Graphs of trigonometric functions (sketch and label coordinates)	
Translations and reflections of a graph and their functions	

Ratio, Proportion and Rates of Change	
Ratio and proportion problems	
Exchange rates	
Converting metric units (including areas and volumes)	
Best buy problems	
Scale drawings	
Percentage change	
Similarity in length, area and volume	
Compound measures (density and pressure)	
Rates of change	
Direct proportion	
Real life graphs	
Distance-time graphs and rates of change (speed)	
Velocity-time graphs, rates of change (acceleration) and area under graph (distance)	

Probability	
Product rule	
Sampling and unbiased samples	
Venn diagrams and set notation	
Frequency trees	

Statistics	
Mean from a discrete frequency table and / or grouped frequency table	
Comparing data on statistical diagrams	
Constructing and interpreting boxplots (finding the median, IQR and comparing two box plots)	
Drawing a cumulative frequency curve, finding the median and IQR	

Based on the questions in Edexcel GCSE Maths Paper 1 and Paper 2 Higher, we have identified topics that have not yet been assessed and may therefore come up in Paper 3.
Please note that the topics already assessed in Paper 1 and Paper 2 could be assessed again, so use our list with that in mind when planning your revision. Do not focus all your revision time on these topics alone.

tutor2u