MATHS TOPIC LIST PAPER 3 HIGHER

This list is to be used as a guide for your revision. It is not an exhaustive list of every topic, but a carefully tailored one to support you to focus your revision.

What came up in Paper 1? **Unlikely to appear again**	• Decimal multiplication • Scatter graphs • Probability tables • Nth term of a linear sequence • Inverse proportion (worded) • Factorise and solve quadratics • Surface area/volume of a cuboid • Percentage profit • Exact trig values/SOHCAHTOA/Pythag • Ratio, % and fractions • Simplify basic indices	• Graphing inequalities (regions) • Recurring decimals • Using scale factions with area/volume • Trigonometric graphs • Expanding triple brackets • Completing the square • Iterative processes • Histogram • Area of a trapezium with surds • Solve quadratic inequalities • Circle theorem proof
What came up in Paper 2? **Unlikely to appear again**	• Using a calculator • Inequalities on a number line • Laws of indices • Mean from a grouped frequency table • Density • Unit conversion (volume, speed) • Percentages (reverse, % change) • Pythagoras (distance between coordinates) • Circumference • Algebraic fraction (simplifying) • Change the subject of a formula	• Cumulative frequency graph (interpreting) • Proportion (direct and inverse) • Quadratic Graph (estimating solutions) • Algebraic proof • Volume and surface area • Bounds calculation • Further trig (1/2absinC, cosine rule) • Geometric proof • Equation of a straight line • Transformations (combined, invariant points) • Probability (dependent event)

Extremely Likely **Common topics left after Papers 1 and 2**	• Algebraic fractions (+ - x ÷) • Simultaneous equations • HCF and LCM • Angle facts • Graphs (quadratics, cubic, circle, gradient of a curve, area under a curve) • Error intervals • Algebra (solving, forming and solving, factorising, quadratic sequences) • Transformations of graphs • Circles, including sectors • Volume • Box plots • Probability (algebraic, Venn diagrams) • Compound interest	• Circle Theorems • Iteration • Functions • Ratio • 3D Pythagoras and Trigonometry • Standard Form – calculations and conversions • Angles in parallel lines • Angles in polygons • Quadratic formula • Negative and fractional indices • Averages (not grouped frequency table) • Inequalities (solving, on a graph) • Product rule for counting • Vectors