Checklist of GCSE Maths topics:

Both tiers

Number & ratio	Algebra & graphs	Geometry & measure	Statistics
+ - x ÷ (inc long mult/div & decimals) BIDMAS Place value, directed nos. Round & estimate, inc s.f. Bounds & accuracy Indices *Surds* HCF & LCM, Venn diags Standard form Fractions, inc arithmetic FDP convert & compare *Recurring decimal to frac* %s, inc compd & reverse Ratio & proportion Multiplicative reasoning Direct & inv proportion Systematic listing strategies	General algebra skills Changing the subject Simult eqns (*2 methods*) Algebraic fractions Straight line graphs *Graphical inequalities* Quadratics: expand, factorise, sketch, *compl sqr (H), quadr formula* *Quadratic inequalities* *Disguised quadratics* *Intersection line & curve* *Expand cubic brackets* Different graph shapes *Graph transformations* *Inverse & composite fns* *Rate of change, tangent to a graph, area under graph, travel graphs (d-t and v-t)* *Eqn of a circle, tangent* *Iterations* Sequences: arithmetic, geometric, *quadratic* Proof	Angle rules, parallel lines Polygons: int & ext angles *Proof with angles* Symmetry Quadrilateral types Pythagoras SOHCAHTOA Exact trig ratios *Trig graphs* *Δ area, sine & cosine rules* Perimeter & area Circles, arcs & sectors Vol & surface area *3D Pythagoras & trig* *Circle theorems* *Circle theorem proofs* Constructions & loci Scale diagrams, map scales, plans/elevations Bearings Nets Working with measures: convert units, compound measures, timetables Congruence, similarity Shape transformations Vectors	Populations, sampling Data types: qual/quant, discrete/continuous Collecting data Freq table, bar chart, pictogram, vert line graph Pie charts Time series & trends Stem & leaf Average & spread Mean/median of grouped data *Cum freq & box plots* *Histograms* Bivariate data (scatter graphs) & outliers Probability basics Probability: Venn & sets, 2-way tables, tree diags, addition law (OR), multiplicn law (AND) *Conditional probability, independent events*

Italics indicate Higher-only topics for GCSE

Foundation only

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