Self Assessment Checklist
Higher Topics (Grades 4-9)

Algebra

👍 👎	Grade	Topic	Link
	4	Substitution	
	4	Using $y = mx + c$	
	4	Real-life graphs	
	4	Graphs of quadratic functions	
	4	Factorising single brackets	
	4	Changing the subject	
	4	Writing formulae and expressions	
	4	Solve linear inequalities in one variable	
	4	Expanding double brackets	
	5	Simplify surds	
	5	Simplify indices	
	5	Quadratic graphs	
	5	Linear equations	
	5	Graphical solution to equations	
	5	Simultaneous equations	
	5	Quadratic and simple geometric sequences	
	5	Factorising quadratic expressions	
	5	Deduce quadratic roots algebraically	
	5	Cubic and reciprocal graphs	
	6	Represent linear inequalities	
	6	nth term of a quadratic sequence	
	6	Linear inequalities in two variables	
	6	Inverse functions	
	6	Algebraic fractions	
	7	Turning points and completing the square	
	7	Translations and reflections of a function	
	7	Solve quadratic inequalities	
	7	Simultaneous equations (non-linear)	
	7	Quadratic equations (quadratic formula)	
	7	Graphs of exponential functions	
	7	Geometric sequences	
	7	Expanding the product of two or more binomials	
	7	Composite functions	
	8	Graphs of trigonometric functions	
	8	Gradients and area under a graph	
	8	Algebra and proof	
	9	Equation of a tangent	
	9	Equation of a circle	
	9	Approximate solutions to equations using iteration	

Geometry and Measures

	Grade	Topic	Link
	4	Circumference of a circle	
	4	Circle terminology	
	4	Areas of triangles, trapezia and parallelograms	
	4	Area of a circle	
	4	Alternate and corresponding angles	
	4	Volume of prisms	
	4	Solve geometrical problems	
	4	Polygons	
	4	Plans and elevations	
	4	Enlargements and fractional scale factor	
	4	Bearings	
	4	Volume	
	4	Trigonometry – sine, cosine rules	
	4	Standard constructions	
	4	Pythagoras	
	4	Loci	
	5	Surface area	
	5	Similarity and congruence	
	5	Arc lengths and sectors	
	7	Trigonometric values	
	6	Combined transformations	
	7	Trigonometry	
	8	Vector arguments and proof	
	8	Circle theorems	

Number

	Grade	Topic	Link
	4	Terminating decimals and fractions	
	4	Rounding	
	4	Order of operations	
	4	Multiplying fractions	
	4	Dividing fractions	
	4	Multiples and factors	
	4	Interpret calculator displays	
	4	Fractions and percentages	
	4	Adding and subtracting fractions	
	4	Standard form	
	4	LCM and HCF	
	4	Estimation	
	4	Converting metric units	
	4	Compound measures	
	5	Limits of accuracy	
	5	Index laws	
	5	Error intervals	
	5	Using Pi	
	5	Product of prime factors	
	6	Powers and roots	
	7	Upper and lower bounds	
	7	Recurring decimals	
	7	Product rule	
	7	Index laws (negative and fractional)	
	8	Surds	

Probability

	Grade	Topic	Link
	4	Frequency trees	
	4	Venn diagrams	
	4	Unbiased samples	
	4	Theoretical probability	
	4	Relative frequency	
	4	Mutually exclusive sum	
	5	Probability of independent events	
	5	Probability of dependent events	
	7	Conditional probability	

Ratio, Proportion and Rates of Change

	Grade	Topic	Link
	4	Proportion and ratio	
	4	Problems involving ratio	
	4	Express one quantity as a percentage of another	
	4	Division of a quantity as a ratio	
	4	Ratio sharing	
	4	Percentage change	
	4	Compare lengths, area and volume	
	4	Compare fractions, decimals and percentages	
	5	Solve proportion problems	
	5	Simple interest and financial maths	
	5	Scale factors and similarity	
	5	Problems with compound units	
	5	Interpret proportion	
	5	Growth and decay	
	5	Gradient and the rate of change	
	5	Compound units	
	6	Direct and inverse proportion	
	7	General iterative processes	
	9	Gradients and the rate of change	

Statistics

	Grade	Topic	Link
	4	Time series	
	4	Averages	
	4	Scatter diagrams	
	4	Sampling	
	4	Population	
	4	Correlation	
	4	Comparing distributions	
	4	Comparing data using graphs	
	5	Scatter graphs	
	5	Histograms with equal class width	
	6	Quartiles and Interquartile ranges	
	6	Histograms with unequal class widths	
	6	Cumulative frequency	
	6	Box plots	