

HIGHER CHECKLIST 2017

HIGHER - Grades 4 – 9

Algebra

| I can do this | Grade | Title |
|---------------|-------|---|
| | 9 | Approximate solutions to equations using iteration. |
| | 9 | Equation of a circle |
| | 9 | Equation of a tangent |
| | 8 | Algebra and Proof |
| | 8 | Gradients and area under a graph |
| | 8 | Graphs of trigonometric functions |
| | 8 | Quadratic equations (completing the square) |
| | 7 | Composite functions |
| | 7 | Expand the product of two or more binomials |
| | 7 | Factorising difficult quadratic expressions |
| | 7 | Geometric Sequences |
| | 7 | Graphs of exponential functions |
| | 7 | Quadratic equations (needing re-arrangement) |
| | 7 | Quadratic equations (quadratic formula) |
| | 7 | Real-life exponential graphs |
| | 7 | Represent quadratic inequalities |
| | 7 | Simultaneous equations (non-linear) |
| | 7 | Solve quadratic inequalities |
| | 7 | Translations and reflections of a function |
| | 7 | Turning points & completing the square |
| | 6 | Algebraic fractions |
| | 6 | Identifying parallel lines |
| | 6 | Inverse functions |
| | 6 | Linear inequalities in two variables |
| | 6 | n th term of a quadratic sequence |
| | 6 | Quadratic equations (factorisation) |

| I can do this | Grade | Title |
|---------------|-------|---|
| | 6 | Quadratic equations (graphical methods) |
| | 6 | Represent linear inequalities |
| | 6 | Simultaneous equations (linear) |
| | 5 | Algebraic argument |
| | 5 | Algebraic terminology |
| | 5 | Cubic and Reciprocal graphs |
| | 5 | Deduce quadratic roots algebraically |
| | 5 | Derive an equation |
| | 5 | Equation of a line |
| | 5 | Expand the product of two binomials |
| | 5 | Factorising quadratic expressions |
| | 5 | Fibonacci, quadratic and simple geometric sequences |
| | 5 | Graphical solution to equations |
| | 5 | Inequalities on number lines |
| | 5 | Linear equations |
| | 5 | Quadratic graphs |
| | 5 | Reciprocal real-life graphs |
| | 5 | Simplify indices |
| | 5 | Simplify surds |
| | 5 | Solve linear inequalities in one variable |
| | 5 | Writing formulae and expressions |
| | 4 | Changing the subject |
| | 4 | Collecting like terms |
| | 4 | Expressions |
| | 4 | Factorise single bracket |
| | 4 | Finding the equation of a line |
| | 4 | Graphs of linear functions |
| | 4 | Graphs of quadratic functions |
| | 4 | Linear equations one unknown |
| | 4 | Multiplying single brackets |
| | 4 | Non-standard real life graphs |
| | 4 | n th term of a linear sequence |
| | 4 | Number machines |
| | 4 | Substitution |
| | 4 | Using " $y = mx + c$ " |

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Geometry and Measures

| I can do this | Grade | Title |
|---------------|-------|---|
| | 8 | Circle theorems |
| | 8 | Vector arguments and proof |
| | 7 | Area of a triangle |
| | 7 | Cosine Rule |
| | 7 | Pythagoras and trig 2D and 3D |
| | 7 | Sine Rule |
| | 6 | Combined transformations |
| | 6 | Congruence and Similarity |
| | 6 | Standard trigonometric ratios |
| | 5 | Arc lengths and sectors |
| | 5 | Derive triangle results |
| | 5 | Enlargements and negative SF |
| | 5 | Loci |
| | 5 | Pythagoras |
| | 5 | Similarity and Congruence |
| | 5 | Standard constructions |
| | 5 | Surface Area |
| | 5 | Trigonometric ratios |
| | 5 | Volume |
| | 4 | Alternate and corresponding angles |
| | 4 | Area of a circle |
| | 4 | Areas of composite shapes |
| | 4 | Areas of triangles, trapezia and parallelograms |
| | 4 | Bearings |
| | 4 | Circle terminology |
| | 4 | Circumference of a circle |
| | 4 | Congruent triangles |
| | 4 | Enlargements and fractional SF |
| | 4 | Perimeter of 2D shapes |
| | 4 | Plans and elevations |
| | 4 | Polygons |
| | 4 | Solve geometrical problems |
| | 4 | Vector arithmetic |
| | 4 | Volume of prisms |

Statistics

| I can do this | Grade | Title |
|---------------|-------|--------------------------------------|
| | 6 | Boxplots |
| | 6 | Cumulative frequency |
| | 6 | Histograms with unequal class widths |
| | 6 | Quartiles and Interquartile Range |
| | 5 | Histograms with equal class widths |
| | 5 | Scatter graphs |
| | 4 | Comparing data using graphs |
| | 4 | Comparing Distributions |
| | 4 | Correlation |
| | 4 | Population |
| | 4 | Sampling |
| | 4 | Scatter Diagrams |
| | 4 | Time series |

Probability

| I can do this | Grade | Title |
|---------------|-------|-----------------------------------|
| | 7 | Conditional Probability |
| | 5 | Probability of dependent events |
| | 5 | Probability of independent events |
| | 4 | Mutually exclusive sum |
| | 4 | Relative Frequency |
| | 4 | Tables and Grids |
| | 4 | Theoretical Probability |
| | 4 | Unbiased Samples |
| | 4 | Venn Diagrams |

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Number

| I can do this | Grade | Title |
|---------------|-------|--------------------------------------|
| | 8 | Surds |
| | 7 | Index Laws (negative and fractional) |
| | 7 | Product rule |
| | 7 | Recurring Decimals |
| | 7 | Upper and lower bounds |
| | 6 | Finance 1 |
| | 6 | Powers and Roots |
| | 6 | Product of prime factors |
| | 6 | Using Pi |
| | 5 | Calculating with fractions |
| | 5 | Error intervals |
| | 5 | Index Laws |
| | 5 | Limits of accuracy |
| | 4 | Adding and subtracting fractions |
| | 4 | Checking calculations |
| | 4 | Compound measures |
| | 4 | Converting metric units |
| | 4 | Estimation |
| | 4 | Fractions and percentages |
| | 4 | Fractions and ratio problems |
| | 4 | Interpret calculator displays |
| | 4 | LCM and HCF |
| | 4 | Multiples and factors |
| | 4 | Multiplying fractions |
| | 4 | Operations |
| | 4 | Order of operations |
| | 4 | Powers |
| | 4 | Rounding |
| | 4 | Standard Form |
| | 4 | Terminating decimals and fractions |

Ratio, Proportion and rates of change

| I can do this | Grade | Title |
|---------------|-------|---|
| | 9 | Gradients and the rate of change |
| | 7 | General iterative processes |
| | 6 | Direct and inverse proportion |
| | 5 | Compound Units |
| | 5 | Gradient & the rate of change |
| | 5 | Growth and decay |
| | 5 | Interpret Proportion |
| | 5 | Percentage change |
| | 5 | Problems with compound units |
| | 5 | Scale factors and similarity |
| | 5 | Simple Interest and Financial Maths |
| | 5 | Solve Proportion Problems |
| | 4 | Compare Fractions, Decimals and Percentages |
| | 4 | Compare lengths, area, volume |
| | 4 | Comparing quantities as a ratio |
| | 4 | Division of a quantity as a ratio |
| | 4 | Express one quantity as a % of another |
| | 4 | Percentage change |
| | 4 | Problems involving ratio |
| | 4 | Proportion and ratio |
| | 4 | Ratio and fractions |
| | 4 | Ratio Sharing |