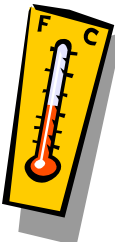


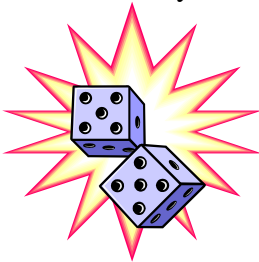


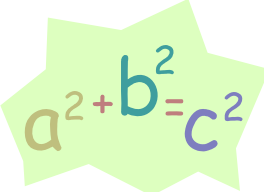




National Curriculum Levels
Mathematics
Key Stage 3

Levels	Number and Algebra	Shape and Space	Data Handling
3	<ul style="list-style-type: none"> Numbers up to 1000. Begin to use decimals and negatives in the context of money and temperature. 	<ul style="list-style-type: none"> Know 2D and 3D shapes Metric units eg mm, cm, kg, litres 	<ul style="list-style-type: none"> Use and construct bar charts and pictograms 
4	<ul style="list-style-type: none"> Multiply and divide by 10 and 100. Times tables up to 10x10. Written methods for adding, subtracting and short multiplication and division. Add decimals to 2 dp Order decimals to 3 dp Check answers using approximations. Use simple fractions and percentages. Vocabulary: multiple, factor, square numbers Plot positive co-ordinates. 	<ul style="list-style-type: none"> Vocabulary : faces, edges, vertices Reflect shapes in a mirror line Perimeters and areas by counting squares 	<ul style="list-style-type: none"> Frequency tables Mode Range Grouped frequency diagrams
5	<ul style="list-style-type: none"> Multiply and divide decimals by 10, 100 and 1000 Order, add and subtract decimals. + , - , x , ÷ decimals to 2 dp Simplify fractions Simple ratio Find fractions and % of quantities. Long multiplication Formulae Plot positive and negative co-ordinates. 	<ul style="list-style-type: none"> Measure and draw angles Angles in a triangle add up to 180° Angles at a point add up to 360° All the lines of symmetry in basic shapes, eg kite Rough approximations between metric and imperial measurements Estimate measurements 	<ul style="list-style-type: none"> Mean Median Understand and use pie charts Probability scale 

<p>6</p>	<ul style="list-style-type: none"> • Round decimal answers • Use trial and improvement to solve equations. • Write numbers as a fraction or percentage of another. • Convert between fractions, decimals and %. • +, - fractions • Share in a given ratio • Find the nth term of a sequence • Solve equations • Draw graphs 	<ul style="list-style-type: none"> • Plans and elevations • Angles in a quadrilateral add up to 360° • The names of shapes up to 10 sides. • Opposite, corresponding, alternate and co-interior angles. • Area and circumference of a circle. • Volumes of cuboids • Enlarge shapes by a given scale factor 	<ul style="list-style-type: none"> • Construct pie charts • Scattergraphs • Correlation • Possibility space diagrams • All probabilities add up to 1 
<p>7</p>	<ul style="list-style-type: none"> • Estimate using significant figures and thus approximate answers • x and ÷ by numbers between 0 and 1 • Long division or equivalent. • Percentage increase/decrease. • Quadratic sequences • Expand double brackets • Simultaneous equations, graphically • Simple inequalities 	<ul style="list-style-type: none"> • Pythagoras • Enlarge by a fractional scale factor • Locus • Effect of rounding in calculations • Speed and density  	<ul style="list-style-type: none"> • Hypothesis • Questionnaires • Good sampling methods to avoid bias • Mode, median, mean and range from grouped data • Frequency polygons • Line of best fit • Relative frequency
<p>8</p>	<ul style="list-style-type: none"> • Solve problems with powers and roots. • Standard form • Compound interest • Reverse percentages • Algebraic formulae involving fractions, decimals and negatives • Rearrange equations • Factorise • Sketch graphs, linear, quadratic, cubic and reciprocal 	<ul style="list-style-type: none"> • Vocabulary: congruence and similarity • Trigonometry • Perimeter, area and volume equations 	<ul style="list-style-type: none"> • Cumulative frequency curves • Find median and inter-quartile range from the above. • Tree diagrams