

Number	<p>Round decimals to any given accuracy</p> <p>Recognise equivalences and perform calculations with powers of 10 e.g.: $0.1, \frac{1}{10}, 10^{-1}$</p> <p>Recall from memory the cubes of 1,2,3,4,5 & 10</p> <p>Know and use the laws of indices e.g.: $a^m \times a^n, \frac{a^m}{a^n}, (a^m)^n, a^0, a^1$</p> <p>Calculate the Lowest Common Multiple(LCM) & Highest Common Factor(HCF) using Venn diagrams</p> <p>Convert between ordinary numbers and numbers in standard form</p> <p>Add, subtract, multiply and divide numbers that are written in standard form</p> <p>Divide any integer by a decimal by converting to division by an integer e.g.: $6 \div 0.2 = \frac{6}{0.2} = \frac{60}{2}$</p> <p>Add, subtract, multiply and divide fractions; including different denominators</p> <p>Understand the term reciprocal and calculate reciprocals of any integer, decimal or fraction</p> <p>Convert simple fractions into recurring decimals using bus-stop method</p> <p>Calculate percentage increase and decrease</p> <p>Calculate simple interest</p>
Algebra	<p>Expand and simplify brackets including with negatives e.g.: $3(x + 4) - (x + 5)$</p> <p>Construct and solve linear equations, including unknowns on both sides</p> <p>Construct, use and rearrange simple formulae</p> <p>Plot and solve inequalities on a number line</p> <p>Solve simultaneous equations graphically</p> <p>Identify and continue the Fibonacci sequence</p> <p>Add and subtract simple algebraic fractions e.g.: $\frac{2}{x} + \frac{1}{3x}$</p> <p>Plot quadratic functions with and without a calculator</p>
Ratio & Proportion	<p>Calculate density, mass, volume, speed, time and distance</p> <p>Calculate the linear scale factor of similar shapes</p> <p>Use proportional reasoning to compare proportions</p> <p>Compare two ratios</p> <p>Calculate the percentage increase or decrease</p>
Geometry	<p>Construct triangles accurately given SSS, ASA, SAS</p> <p>Use a ruler and compasses to bisect an angle</p> <p>Construct perpendicular lines</p> <p>Enlarge any shape given a positive scale factor</p> <p>Describe a rotation, reflection and translation on a co-ordinate grid</p> <p>Calculate the circumference and area of a semi-circle and quarter of a circle</p> <p>Calculate missing lengths using Pythagoras' Theorem</p> <p>Calculate interior, exterior and the sum of angles in polygons</p>
Statistics	<p>Apply and work out the fraction of each sector on a pie chart</p> <p>Draw and interpret distance-time graphs</p> <p>Calculate averages from frequency tables</p>
Probability	<p>Use $1 - p$ to calculate the probability of an event not occurring</p> <p>Calculate a missing probability from a list or table including algebraic terms</p> <p>Use a numerical scale from 0 to 1 to express and compare experimental and theoretical probabilities in a range of contexts.</p> <p>Compare relative frequencies from samples of different sizes</p> <p>Complete Venn diagrams and use union and intersection notation</p>