

Year 7

		Number	Algebra	Geometry
Lowest 20%	1:1	<b>Place value</b>	<b>Expressions</b>	<b>Length and area</b>
	1:2	Use the decimal number system to compare and order integers	Use an algebraic expression to describe a simple calculation	Find the perimeter of a variety of shapes
	1:3	<b>Four operations</b> Understand and use a variety of mental techniques for addition and subtraction  Add and subtract integers of any size  Multiply integers of any size using an area model  <b>Fractions and percentages</b> Find a fraction of an amount where the calculations are simple  Write equivalent fractions  Convert between improper and mixed fractions  Multiply fractions  Find a percentage of an amount in simple cases  Express one amount as a fraction of another	Substitute a value into a simple expression/formula  <b>Equations</b> Solve simple linear equations using one inverse operation	Find the area of parallelograms and triangles.  <b>Angle</b> Measure, draw and label angles  Calculate missing angles at a point  Calculate missing angles in a triangle
Low middle 40%	2:1			
	2:2	<b>Place value</b>	<b>Expressions</b>	<b>Length and area</b>
	2:3	Use the decimal number system to compare and order non-integers  <b>Four operations</b> Add and subtract decimal non-integers  Understand and use a variety of written techniques for multiplication and division	Write simple algebraic expressions, equations and identities using the standard conventions  Substitute a value into a simple expression/formula and interpret it in a context  Simplify expressions by adding and subtracting 'like terms'	Find the area of compound shapes  Find missing dimensions on shapes of known area  Solve simple multi-step problems based on area and perimeter  <b>Angle</b>

		<p>Multiply decimal non-integers</p> <p>Divide decimal non-integers by a small integer</p> <p>Use indices to indicate squaring or cubing</p> <p><b>Fractions and percentages</b> Find a fraction of an amount</p> <p>Increase/decrease an amount by a fraction</p> <p>Use fractions as the answer to a division</p> <p>Multiply mixed numbers</p> <p>Divide mixed numbers</p> <p>Find any percentage of an amount</p> <p>Find percentage increases and decreases</p> <p>Express one amount as a proportion of another using percentages</p> <p>Convert simple proportions between fractions, decimals and percentages</p>	<p>Expand expressions using single brackets</p> <p><b>Equations</b> Solve simple linear equations with two unknowns</p>	<p>Draw accurate triangles from side-angle-side and angle-side-angle descriptions</p> <p>Calculate missing angles in a triangle, using the properties of special triangles</p> <p>Calculate exterior and interior angles in regular polygons</p>
High middle 40%	3:1 3:2 3:3	<p><b>Four operations</b> Divide any decimal number by any decimal number</p> <p>Use the four operations in a variety of simple contexts</p> <p><b>Fractions and percentages</b> Given a fraction of an amount, find the original amount</p> <p>Compare sizes of fractions and decimals</p>	<p><b>Expressions</b> Substitute a value into a more complex expression/formula and interpret it in a context</p> <p>Write expressions/formulas from simple contexts, such as the perimeter of a shape or a worded comparison of people's ages</p> <p><b>Equations</b> Solve linear equations with two unknowns, including those including brackets or requiring simplification</p>	<p><b>Length and area</b> Find the area of a trapezium</p> <p>Solve more complex problems based on area and perimeter</p> <p><b>Angle</b> Calculate angles in diagrams that incorporate several related triangles</p> <p>Calculate missing interior angles in irregular polygons</p>

		<p>Use simplification of fractions to create equivalent divisions</p> <p>Use multiplication and division of fractions in a variety of simple contexts</p> <p>Use a multiplier to make percentage increases</p> <p>Express one amount as a proportion of another using decimal multipliers</p> <p>Solve simple problems involving percentage change</p> <p>Convert any proportion between fractions, decimals and percentages</p>		
Top 20%	4:1			
	4:2	<p><b>Four operations</b></p> <p>Use the four operations in a variety of more challenging contexts</p> <p><b>Fractions and percentages</b></p> <p>Use equivalent fractions to solve problems involving capture-recapture sampling</p> <p>Solve questions involving a 'fraction of a fraction'</p> <p>Use a multiplier to make percentage decreases</p> <p>Solve harder problems involving percentage change</p> <p>Convert between fractions and decimals to complete calculations and solve problems</p>	<p><b>Expressions</b></p> <p>Write an expressions/formulas from more complex contexts, such as the sum of consecutive numbers or shapes in a visual sequence</p> <p><b>Equations</b></p> <p>Solve linear equations which include negative <math>x</math> terms</p> <p>Write a linear equation to help solve a problem from a context, such as the lengths or angles of a shape</p>	<p><b>Length and area</b></p> <p>Find the area of more complex compound shapes, including making deductions about unknown lengths</p> <p>Find missing dimensions on a trapezium of known area</p> <p>Estimate the area of a curved shape using trapeziums</p> <p><b>Angle</b></p> <p>Solve angle problems involving several related polygons</p>
	4:3			