

Year 8 Set 3		
Term	Unit	2014 Programme of Study
A u t u m t e r m	1 Number properties and calculations	<p>understand and use place value for integers</p> <p>use the four operations, including formal written methods, with positive and negative integers</p> <p>use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals</p> <p>use ratio notation</p> <p>reduce a ratio to simplest form</p> <p>divide a given quantity into two parts in a given part:part ratio</p> <p>express the division of a quantity into two parts as a ratio</p> <p>understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction</p>
	2 Shapes and measures in 3D	derive and apply formulae to calculate and solve problems involving volume of cuboids (including cubes)
	Half-term test	
	3 Statistics	<p>describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete data</p> <p>construct and interpret frequency tables</p> <p>construct and interpret bar charts</p> <p>construct and interpret pie charts</p>
S p r i	4 Expressions and equations	<p>recognise and use relationships between operations including inverse operations</p> <p>use and interpret algebraic notation: brackets</p> <p>substitute numerical values into formulae and expressions, including scientific formulae</p> <p>understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors</p> <p>simplify and manipulate algebraic expressions to maintain equivalence: collecting like terms</p> <p>simplify and manipulate algebraic expressions to maintain equivalence: multiplying a single term over a bracket</p>
	End of term test	
	5 Decimal calculations	<p>understand and use place value for decimals</p> <p>order positive and negative integers</p> <p>order decimals and fractions</p> <p>use the symbols =, ≠, <, >, ≤, ≥</p> <p>use the four operations, including formal written methods, with positive and negative decimals</p>
6 Angles	<p>draw and measure line segments and angles in geometric figures</p> <p>use the standard conventions for labelling the sides and angles of triangle ABC</p> <p>apply the properties of angles at a point</p> <p>apply the properties angles at a point on a straight line</p> <p>apply the properties vertically opposite angles</p> <p>derive and use the sum of angles in a triangle</p>	
Half-term test		

n g t e r m	7 Number properties	<p>use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals</p> <p>use integer powers and associated real roots (square, cube and higher)</p> <p>recognise powers of 2, 3, 4, 5</p> <p>use the concepts and vocabulary of prime numbers</p> <p>use the concepts and vocabulary of factors (or divisors)</p> <p>use the concepts and vocabulary of multiples</p> <p>use the concepts and vocabulary of common factors</p> <p>use the concepts and vocabulary of common multiples</p> <p>use the concepts and vocabulary of highest common factor</p> <p>use the concepts and vocabulary of lowest common multiple</p> <p>use the concepts and vocabulary of prime factorisation</p> <p>use product notation and the unique factorisation property</p> <p>use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals</p> <p>use integer powers and associated real roots (square, cube and higher)</p> <p>recognise powers of 2, 3, 4, 5</p> <p>use a calculator and other technologies to calculate results accurately and then interpret them appropriately</p>
	End of term test	
S u m m e r t e r m	8 Sequences	<p>generate terms of a sequence from a term-to-term rule</p> <p>generate terms of a sequence from a position-to-term</p> <p>recognise arithmetic sequences</p> <p>find the nth term</p> <p>recognise geometric sequences and appreciate other sequences that arise</p>
	9 Fractions and percentages	<p>use the four operations, including formal written methods, with positive and negative fractions</p> <p>interpret percentages and percentage changes as a fraction or a decimal</p> <p>express one quantity as a percentage of another</p> <p>interpret fractions and percentages as operators</p>
Half-term test		
	10 Probability	<p>record, describe and analyse the frequency of outcomes of simple probability experiments involving randomness, fairness, equally and unequally likely outcomes</p> <p>use appropriate language of probability</p> <p>use the 0-1 probability scale</p> <p>understand that probabilities of all possible outcomes sum to 1</p>
End of year test		