Year 7 Sets 1 and 2		
Term	**Unit Title**	**2014 Programme of study**
Autumn term	1 Analysing and displaying data	describe, interpret and compare observed distributions of a single variable through: appropriate measures of central tendency (mean, mode, median) and appropriate measures of spread (range, consideration of outliers) construct and interpret vertical line (or bar) charts for ungrouped and grouped data
	2 Number skills	use conventional notation for the priority of operations round numbers and measures to an appropriate degree of accuracy recognise and use relationships between operations including inverse operations use the four operations, including formal written methods, with positive and negative integers order positive and negative integers use the concepts and vocabulary of prime numbers, factors [or divisors] and prime numbers use integer powers and associated real roots (square, cube) use approximation through rounding to estimate answers
	Half-term test	
	3 Expressions, functions and formulae	substitute numerical values into formulae and expressions, including scientific formulae simplify and manipulate algebraic expressions to maintain equivalence: collecting like terms, multiplying a term over a bracket use and interpret algebraic notation: $3y$ in place of $y + y + y$ and $3 \times y$ model situations or procedures by translating them into algebraic expressions or formulae
	4 Decimals and measures	understand and use place value for decimals order decimals and fractions use the symbols =, ≠, <, >, ≤, ≥ understand and use place value for measures work with coordinates in all four quadrants use the four operations, including formal written methods, with positive and negative decimals derive formulae to calculate and solve problems involving perimeter and area of parallelograms
	End of term test	
Spring term	5 Fractions	order decimals and fractions use the symbols =, ≠, <, >, ≤, ≥ use the four operations, including formal written methods, with positive and negative fractions define percentage as 'number of parts per hundred' interpret a percentage as a fraction or a decimal interpret fractions and percentages as operators
	6 Probability	use appropriate language of probability use the 0–1 probability scale understand that probabilities of all possible outcomes sum to 1 record, describe and analyse the frequency of outcomes of simple probability experiments involving randomness, fairness, equally and unequally likely outcomes
	Half-term test	
	7 Ratio and proportion	solve problems involving direct proportion use ratio notation reduce a ratio to simplest form divide a given quantity into two parts in a given part:part ratio use scale factors understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction express the division of a quantity into two parts as a ratio
	End of term test	
Summer term	8 Lines and angles	use the standard conventions for labelling the sides and angles of triangle ABC draw and measure line segments and angles in geometric figures apply the properties angles at a point and on a straight line apply the properties vertically opposite angles derive and use the sum of angles in a triangle use the sum of angles in a triangle to deduce the angle sum in any polygon use known results to obtain simple proofs
	9 Sequences and graphs	generate terms of a sequence from a term-to-term rule generate terms of a sequence from a position-to-term recognise arithmetic sequences find the n th term recognise geometric sequences and appreciate other sequences that arise work with coordinates in all four quadrants produce graphs of linear functions interpret mathematical relationships both algebraically and graphically
	Half-term test	
	10 Transformations	derive properties of regular polygons identify properties of, and describe the results of: translations identify properties of, and describe the results of: rotations identify properties of, and describe the results of: reflections
	End of year test	