

Subject Progression Statement

Subject: Maths

Year: 7

Term: Summer



Assessment Areas	Mastery Steps		
	Foundation	Secure	Mastery
Number Skills	<ul style="list-style-type: none"> count forwards or backwards in steps of powers of 10 round to the nearest whole number and 1 decimal place use rounding to find estimates to calculations add and subtract fractions with different denominators multiply simple pairs of proper fractions divide proper fractions by whole numbers solve problems involving percentages of amounts multiply numbers with two decimal places by whole numbers solve problems involving percentages of amounts 	<ul style="list-style-type: none"> apply the four operations, including formal written methods, to simple fractions (proper and improper), and mixed numbers interpret percentages and percentage changes as a fraction or a decimal, and interpret these multiplicatively compare two quantities using percentages solve problems involving percentage change, including percentage increase/decrease 	<ul style="list-style-type: none"> Identify the multiplier for a percentage increase or decrease when the percentage is greater than 100% Use calculators to increase an amount by a percentage greater than 100% Solve problems involving percentage change including original value problems when working with percentages Solve problems that require exact calculation with fractions
Algebra	<ul style="list-style-type: none"> Plot co-ordinates in all 4 quadrants express missing number problems algebraically find pairs of numbers that satisfy an equation with two unknowns 	<ul style="list-style-type: none"> Plot co-ordinates and look for patterns to start to try and find simple equations of lines understand and use lines parallel to the axes, recognise and use relationships between operations, solve linear equations in one unknown algebraically 	<ul style="list-style-type: none"> plot graphs of equations that correspond to straight-line graphs in the coordinate plane identify and interpret gradients and intercepts of linear functions graphically recognise, sketch and interpret graphs of linear functions and simple quadratic functions plot and interpret graphs and use them to solve equations
Shape, space and measures	<ul style="list-style-type: none"> measure and calculate the perimeter of composite shapes calculate and compare the area of rectangles estimate volume calculate the area of parallelograms and triangles calculate, estimate and compare volume of cubes and cuboids solve problems involving the calculation and conversion of units of measure, using decimal notation identify, describe and represent the position of a shape following a reflection or translation describe positions on the full coordinate grid draw and translate simple shapes 	<ul style="list-style-type: none"> use standard units of measure for length, area, volume calculate perimeters of 2D shapes calculate area of compound shapes including trapezia calculate surface area of cuboids solve geometrical problems on coordinate axes identify, describe and construct congruent shapes by considering rotation, reflection and translation describe translations as 2D vectors 	<ul style="list-style-type: none"> compare lengths, areas and volumes using ratio notation calculate perimeters of 2D shapes, including circles identify and apply circle definitions and properties, including: centre, radius, chord, diameter, circumference know the formulae for circumference and area of a circle calculate areas of circles and composite shapes know and apply formulae to calculate volume of prisms (including cylinders)
Data Handling	<ul style="list-style-type: none"> solve comparison, sum and difference problems using information presented in a line graph interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average to understand basic definitions of probability 	<ul style="list-style-type: none"> interpret and construct tables, charts and diagrams, including frequency tables, bar charts, pie charts and pictograms interpret, analyse and compare the distributions of data sets using averages and range to be able to work out basic theoretical probability and use the fact that all probability sums to 1 to solve problems 	<ul style="list-style-type: none"> use and interpret scatter graphs recognise correlation to be able to identify and interpret outliers apply statistics to describe a population apply systematic listing strategies record describe and analyse the frequency of outcomes of probability experiments using frequency trees be able to use and interpret Venn diagrams construct theoretical possibility spaces for combined experiments

