The Charter School
East Dulwich

Year 10 Foundation Mathematics Curriculum Map						
Half Term	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Big Themes	**Calculations; Measures and Accuracy; Expressions**	**Polygons and Angles; Fractions, decimals and %; Formulae and Functions**	**Working in 2D; Equations - solving linear equations**	**Equations - simultaneous Equations; Measures and Accuracy and bearings; Circles**	**Probability; Sequences; Linear inequalities and solving quadratics; Pythagoras**	**Ratio and Proportion**
Knowledge and skills covered	• Use place value when calculating with decimals, Order positive and negative integers using inequality symbols, Round to a number of decimal places and significant figures, Add and subtract positive and negative integers and decimals, Multiply and divide positive and negative integers and decimals, Use BIDMAS in multi stage calculations • Round numbers and measures to an appropriate degree of accuracy, Use approximate values to estimate calculations, Check calculations using estimation and approximation, Calculator methods • Using algebraic notation, Collect like terms and simplifying expressions involving sums, products, powers and surds, Use and understand the words expressions, equations, formulae, terms and factors,	• Describe and apply the properties of angles at a point, on a line, and at intersecting parallel lines, Derive and use the sum of angles in a triangle, Derive and apply the properties and definitions of special types of quadrilaterals, Solve geometrical problems on coordinate axes, Identify and use congruence and similarity, Deduce and use the angle sum in any polygon and derive properties of regular polygons • Convert between terminating decimals and their corresponding fractions, Compare fractions and decimals using inequality symbols, Find fraction and % of amounts, Add and subtract fractions and mixed numbers, Multiply and divide fractions and mixed numbers, Convert between fractions, decimals and % • Substitute numerical	• Know and apply formula to calculate the area of triangles, parallelograms, and trapezia, Identify and construct reflections, rotations, translations and enlargements. • Set up and solve simple linear equations, Solve equations with unknowns on both sides and involving fractions, Set up equations based on geometrical knowledge, Using a linear graph to solve an equation	• Derive and solve 2 linear simultaneous equations in two variables, Setting up and solving simultaneous equations using elimination and substitution, Using graphs to find approximate solutions for 2 linear simultaneous equations • Use standard units of length, mass, volume, capacity, time and area, Interpret maps and scale drawings, Understand and interpret 3 figure bearings and use properties of angles on parallel lines to understand bearings problems, Solve problems using speed and density formulas • Identify and apply circle definitions, properties and formulae, Calculate the circumference and area of a circle, Rearrange formulae to calculate unknown dimensions, Calculate the perimeter and area	• Use experimental data to estimate probabilities and expected frequencies, Calculate theoretical probabilities and expected frequencies using the idea of equally likely events, Compare theoretical probabilities with experimental probabilities, Recognise mutually exclusive events and exhaustive events and know the probabilities of mutually exclusive events sum to 1. • Find the terms of a sequence using the term to term rule or position to term rule, Generate nth term expression for a linear sequence, Recognise special types of sequences and finding terms using either term to term or position to term rule, Find terms of a quadratic sequence using position to term rule or term to term rule • Solve linear inequalities in one variable and represent the solution on a number line, Compound inequalities, Solve quadratic equations algebraically by factorising, Factorising into single and double brackets prior to solving, Finding approximate solutions to quadratic equations using	• Use fractions and percentages to describe a proportion, Write a ratio in its simplest form and divide a quantity into a given ratio, Use scale factors, scale diagrams and mas

	Substitute numbers into Formulae and expressions, Use the laws of indices (New KS4 content), Multiply out a single bracket, Take out common factors in an expression	values into formulae and expressions, Rearrange formulae to change the subject Identify Inequalities, equations, formulae, identities, Expand double brackets Factorise quadratic expressions with a coefficient of 1. Difference of 2 sq		of compound shapes, Calculate the length of an arc and the area of a sector	graphs and using graphs to solve quadratic equations ● Use Pythagoras' theorem and rearrange where necessary, Calculating the length of missing sides	
Knowledge organisers and more detailed topic resources can be found on all student Google Classrooms						