The Charter School East Dulwich

Year 7 Maths Curriculum Map						
Half Term	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Big Themes	**Algebra, Time, Multiplying/dividing by powers of 10**	**Numeracy, Rounding, Percentages**	**Factors, Multiples, Order of operations**	**Fractions**	**Angles, Properties of shape, Area**	**Data - Pie charts, Bar charts**
Knowledge and skills covered	• Understand and use algebraic notation • Use diagrams and letters to generalise number operations • Understand Algebra using function machines • Substitute into expressions • Use vocabulary coefficient, Variable, unknown, term, expression, equation • Understand a letter can take any value • Understand what a like term is (inc powers for mastery) • Collecting like terms • Expanding a single bracket • Understand the difference between expression & equation • Understand inverse operations • Use Inverse operations with function machines • Solving equations using function machines • Solving one step equations • Solving two step equations • Read and write time • Convert from 12 to 24 hour clock • Add and subtract units of time • Understand Place value in the base 10 system • Ordering integers and decimals • Read and write numbers • Multiply and divide integers & decimals by powers of 10	• Use mental methods to add and subtract integers and decimals • Use multiplication facts to solve mental calculations • Understand the column method for adding and subtracting integers and decimals • understand and use the column method to multiply integers • represent multiplication word problems using bar models, and solve • Multiply decimals • Use bus stop division to divide more difficult numbers • Use bus stop division into decimals • Round numbers to 10, 100, 100 • Round numbers to nearest integer and decimal places • Work out simple percentages of an amount (non-calc) • Increase a number by a percentage (non-calc) • Decrease a number by a percentage (non-calc)	• Understanding prime and square numbers • Identify factors and multiples • Find the Highest Common Factor and Lowest Common Multiple by listing • Order negative numbers • Add and subtract negative numbers • Multiply and divide negative numbers • Perform all operations on negative numbers • Understand that addition and subtraction have equal priority • Understand that multiplication and division have equal priority • Understand what powers are • Understand how to calculate powers • Use order of operations to calculate sums • Add brackets to achieve a target number.	• Represent fractions using area diagrams, bar models, number lines • Recognise and name equivalent fractions • Convert fractions to decimals • Convert terminating decimals to fractions • Convert between mixed numbers and improper fractions • Compare and order numbers (including like and unlike fractions) • Convert simple fractions and decimals to percentages • Express one quantity as a fraction of another • Find a fraction of a set of objects or quantity • Use the unitary method to find the whole given a fractional part • Multiply a whole number or fraction by a whole number or fraction • Multiply a mixed number and a whole number • Divide a whole number or proper fraction by a whole number or proper fraction	• Estimating, Classifying, and measuring angles • Accurately drawing angles • Know and use 'angles around a point sum to 360' • Know and use 'Angles on a straight line sum to 180' • Know and use 'angles in a triangle sum to 180' • Write angle reasons along side working to solve multi-step angle problems • Classify types of triangles • Know the properties of different triangles including scalene, isosceles, equilateral and right-angled • Use angle facts about isosceles and equilateral triangles • Know the line and angle properties of different quadrilaterals, including Trapezia, Parallelogram, rhombus, rectangle, square, kite • Calculate the area of a rectangle • Calculate the area of a triangle • Calculate the area of compound shapes • Find the perimeter of a shape	• Recall angles around a point sum to 360 • Interpret pie charts by finding how many people are represented in each angle • Calculate how many degrees each part of the pie chart should be when given the total and the number in each part • Accurately draw pie charts when given the angles for each section • Accurately draw pie charts by calculating the number of degrees in each section • Read data from a bar chart. Including totals, and differences • Spot mistakes in bar charts and describe them concisely • Accurately draw bar charts given data
Knowledge organisers and more detailed topic resources can be found on all student Google Classrooms						

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