Year 8 Maths Curriculum Map						
Half Term	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Big Themes	**Algebra, Linear graphs, Sequences, Area**	**Factors, Multiples, Fractions**	**Classifying shapes, Angles in parallel lines, percentages**	**Percentages, Rounding, Accurate drawings**	**Area & circumference of a circle, Volume and Surface area**	**Averages**
Knowledge and skills covered	- Collecting like terms - Using diagrams and letters to generalise number operations - expand a single bracket - multiply & divide expressions by unknowns and integers - form expressions - substitution - Solve 2-step equations - solve equations involving brackets - Calculate midpoint of vertical, horizontal, diagonal lines - Find the endpoint given the midpoint and one end point - fill in a table of values for y=mx+c - Plot a line y=mx+c - Plot lines with a fractional gradient - continue sequences - find missing terms of a sequence - describe a sequence using the term to term rule - Calculate the nth term formula for a linear	- Find factors and multiples of a number - Find the LCM and HCF of groups of numbers - Find prime numbers - Find the prime factors of a number - Determine HCF and LCM by prime factorisation - Use indices to record repeated multiplication - Find squares, square roots, cubes and cube roots using prime factorisation - Use equivalent fractions - Convert between improper fractions and mixed numbers - Add and subtract fractions with like denominators - Add and subtract fractions with unlike denominators - Add and subtract mixed numbers and improper fractions - Multiply and divide with fractions and decimals	- Classify special triangles and quadrilaterals on the basis of their properties: define parallelogram, rhombus and trapezium etc - Construct a triangle / quadrilateral from given information - Identify the different types of angles formed by parallel lines and a transversal such as corresponding angles, alternate angles and interior angles - Use the properties of angles to find unknown angles in addition to parallel lines angles rules - Find unknown angles in geometrical figures involving squares, rectangle, parallelogram, rhombus, trapezium and triangle - Convert between cm² and m² - Finding simple % of amounts (non-calc) - Finding any percentage	- Use percentages greater than 100% - Express one quantity as a percentage of another - Compare two quantities by percentage - Increase or decrease a quantity by a given percentage - Reverse percentages: find the original quantity given a part of it and its percentage - Reverse percentages: find the original quantity when we know its final value after the percentage increase or decrease - Solve problems involving percentages and reverse percentages - round to any number of dp - round to any number of sig fig - Estimate calculations by rounding first - Understand and use properties of triangles - accurately construct ASA, SAS and SSS	- Use formulae to calculate the area and circumference of a circle - Find the area and perimeter of semi circle, quarter circle etc - Solve word problems involving area and perimeter - identify, name and describe properties of 2D shapes - Recognise and design nets of 3D shapes - Build and name 3D shapes - Can count edges, faces and vertices - Identify the cross section of a prism - Units of volume, capacity and mass. Conversion - Find the volume of cubes and cuboids - Find the volume of prisms and cylinders - Find the volume of composite shapes - Explore surface area of cubes, cuboids,	- Calculate the mean, median and mode of simple data sets - Find the range and use this to comment on the spread of data - Find the mean from a simple bar chart or frequency table - Use any average and the range to compare two simple sets of data - Appreciate the difference between discrete and continuous data - Classify and tabulate data - Draw, analyse and interpret graphs - Calculating mean, median, mode and range from a discrete frequency table - Calculate in modal class interval from grouped data - Calculate the median class interval from grouped data - Calculate the mean from grouped data

sequence ● use the nth term formula to generate a sequence ● Decide if a number will be in a sequence ● Understand and continue special sequences ● Recall properties of a parallelogram ● Calculate the area of a parallelogram ● Recall properties of a trapezium ● Calculate the area of a trapezium		of an amount using multipliers ● Increase and decrease by a percentage ● Find the original amount given the % change and result (reverse %) ● Express one quantity as a percentage of another ● Convert between FDP	triangles	cylinders and other prisms ● Convert between measures of area and volume	
Knowledge organisers and more detailed topic resources can be found on all student Google Classrooms					