Mathematics Curriculum Plan Overview

Year 11 GCSE plan overview

Term	Topic	Learning	How can parents' best support
Autumn 1	**Basic number** **Collecting and representing data** **Fractions - 4 operations**	**Number** - Negative numbers, index rules, negative indices, standard form, BIDMAS, Describing factors and multiples, Highest Common Factor Lowest common Multiple, using Venn diagrams to find HCF LCM **Statistics** - Bar charts and pictograms including dual bar charts. **Fractions** - simplifying fractions, equivalent fractions, 4 operations with fractions	Continued practice with times tables supports work on fractions and ratio. Look at data in the media and how it is used/misused.
Assessment:	Self assessment and topic tests		
Autumn 2	**Basic Algebra** **Sequences** **Rounding** **Coordinates**	**Algebra -** Generating sequences given a rule. continuing a numeric or pictorial sequence given a rule. Linear sequences - term to term and position to term rules. Fibonacci type sequences. Simplifying expressions. Solving algebraic equations **Rounding -** To nearest 10, 100, 1000. Round to 1 and 2 decimal places, whole numbers, given significant places. **Coordinates** - 4 quadrant grid reading.	Encouragement to count in sequences, to identify the counting to a counting sequence. Counting different denominations of money. Rounding amounts of money, prices, etc. to the nearest pound, ten pound, hundred pound, thousand etc. Practice reading coordinates on a grid.
Assessment:	Self assessment and topic tests (Mock Exams November)		
Spring 1	**Basic Decimals** **Basic Percentages** **Area and Perimeter** **Hot Spot - Measures**	**Number** - percentages, basic percentages as proportion of 100, converting percentages to decimals **Geometry and Measures** - area and perimeter of rectangles and squares and compound shapes made with rectilinear shapes, area of quadrilaterals including trapeziums and parallelograms, area of triangles and polygons made from triangles	Exposure to working with decimals. e.g. shopping item prices. Discussing percentages out of 100. Increasing and decreasing by a percentage. Calculating the area/perimeter of places found around the home Use different measurements in real life settings e.g. cooking
Assessment:	Self assessment and topic tests		
Spring 2	**Circumference and area of a circle** **Ratio and Proportion** **Basic Probability** **Hot Spot - Time**	**Geometry and measures** - naming parts of circles, finding circumference and area of circles, area of sectors and segments **Ratio and proportio**n - simplifying ratios finding similar ratios, share in a given ratio, use unitary method for calculating ratios **Probability** - calculate the probability of single events happening using fractions/decimals/percentages, calculate the probability of something "Not" happening, use AND and OR rule with probability in treed diagrams, understand mutually exclusive and independent event	Name and identify parts of a circle. Listen to the circle song and google and discuss pi Practice reading recipes and serving suggestions. (Serves 2 people, calculate how much would we need for 3 people 4 people 5 people?...) Discussing the chance of certain events happening. Weather forecasts for example. There is a 35% chance of rain today so therefore there must be 65% it won't rain.

			Look at timetables and practice reading digital and analogues times
Assessment:	**Self assessment and topic tests**		
Summer 1	**Exam Prep** **Equations** **Plans and views** **Scale drawings**	**Algebra** - solve 1 and 2 step linear equations, solve equations with unknowns on both sides, solve equations involving brackets, solve quadratic equations by factorising, using the formula or completing the square. **Geometry and Measures** - Pythagoras Theorems **Geometry and Measures** - 2D representation of 3D shapes - plans and views on drawings calculating volume of 3D shapes, nets and volume and surface area - including prisms	Look at past papers and identify areas for revision Visit BBC Bitesize and review content for AQA GCSE Maths https://www.bbc.co.uk/bitesize/exam specs/z8sg6fr
Assessment:	**Self assessment and topic tests (Paper 1 examination May)**		
Summer 2	**Exam Prep** **Equations 2D Representations of 3D shapes** **Hot Spot Using a calculator**	**Geometry and Measures** - 2D representation of 3D shapes. Plans and views on drawings, calculating volume of 3D shapes, nets and volume and surface area - including prisms Exam revision - Practice questions from calculator papers	Use of a scientific calculator. Answering wordy multi-step maths questions.
	(Paper 2 & 3 examinations May/June)		