Mathematics Curriculum Plan Overview
Sixth Form

GCSE plan overview

Students will be at different levels in one mixed ability group.

Term	Topic	Learning	How can parents' best support	Key Vocabulary
Autumn 1	**Basic number** **Factors and multiples** **Collecting and representing data** **Basic fractions - four operations**	**Number** - Negative numbers, index rules, negative indices, standard form, BIDMAS, Describing factors and multiples, Highest Common **Factors and Multiples -** 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, four operations with fractions. Calculating fractions of amounts.	Continued practice with times tables supports work on fractions and ratio. Look at data in the media and how it is used/misused.	Negative, positive, indices, squared, cubed, factor, multiple, HCF, LCM, venn diagram, chart, table, bar chart, pictogram, multiplication, division, addition, standard form, brackets, subtraction
Assessment: <u>Key skills tracking</u>			
Autumn 2	**Sequences** **Rounding** **Basic Algebra** **Angles** **Coordinates**	**Sequences** - Term to term, term rules, nth term **Rounding -** To nearest 10, 100, 1000. Round to 1 and 2 decimal places, whole numbers, given significant places. **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 **Angles** - measuring and drawing. calculating angles based on angle facts. Angles in common shapes, angles on parallel lines. **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.	Sequence, pattern, rule, nth, algebraic, brackets, subtraction, expression, equation, term, inequality, simplify, solve, coordinates, axis, bearings, measure, construct, interior, exterior, parallel, perpendicular, opposite angles, alternate angles, co-interior angles
Assessment: <u>Key skills tracking (Mock exams November)</u>			
Spring 1	**Decimals** **Percentages** **Area and Perimeter** **Hot Spot - Measures**	**Decimals** - Comparing decimals and recognising place value. four operations with decimals. **Percentages** - Percentage facts, percentage of amounts, basic percentages as proportion of 100, Percentage change. 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	Decimal, place value, hundredth, thousandth, percentage, percentage change, percentage increase, percentage decrease, proportion, adding, subtracting, multiplying and dividing, convert, area, perimeter, compound shape, metre, centimetre, millimetre, kilometre

			measurements in real life settings e.g. cooking	
	Assessment: <u>Key skills tracking</u>			
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 tree 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	Circumference, diameter, radius, arc, sector, segment, ratio, proportion, share, difference, simplify, probability, and, or, chance, impossible, unlikely, even, likely, certain, percentage, decimal, fraction, relative frequency
	Assessment: <u>Key skills tracking</u>			
Summer 1	**Equations** **Consolidation of Geometry including - plans and views, scale drawings, etc.** **Non-calculator Exam Prep**	**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** - 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 <u>https://www.bbc.co.uk/bitesize/examspecs/z8sg6fr</u>	Equation, inverse, solve, find the solution to, vertices, edges, faces, plan, elevation, net, scale, diagram, ratio, measure, enlargement, scale factor, vertices, edges, faces, plan, elevation, net
	Assessment: <u>Key skills tracking (Paper 1 examination May)</u>			
Summer 2	**Calculator Exam Prep** **Hot Spot Using a calculator**	Exam revision - Practice questions from calculator papers	Use of a scientific calculator. Answering wordy multi-step maths questions.	All of previously used vocab
	Assessment: <u>Key skills tracking (Papers 2 & 3 examinations (June)</u>			