



Mathematics Curriculum Plan Overview Y9-11

Year 9 plan overview

Term	Topic	Learning	How can parents' best support
Autumn 1	Collecting and representing data Basic number Factors and multiples Basic algebra Hot spot Times tables	Statistics - Bar charts and pictograms including dual bar charts. 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 , Algebra - collecting terms and simplifying expressions,	continued practice with times tables supports work on fractions and ratio. Look at data in the media and how it is used/misused.
Assessment:	<u>Self assessment and topic tests</u>		
Autumn 2	Basic Fractions Basic decimals Rounding Angles Scale Diagrams and Bearings	Number - Fractions - simplifying fractions, equivalent fractions, 4 operations with fractions Decimals - Four operations, rounding to decimal places, rounding to significant figures, using rounding to estimate Geometry and measures - scale drawings, constructing triangles, scale drawings, bearings Angles - angle rules in triangles,	Look at scale drawings in context e.g. map work or plans of buildings.
Assessment:	<u>Self assessment and topic tests</u>		
Spring 1	Sequences Basic percentages Introduction to area and perimeter Hot Spot Measures	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. Quadratic sequences - generating using algebra. Fibonacci type sequences. 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	Investigate Golden Ratio and sequences in nature. Use different measurements in real life settings e.g. cooking
Assessment:	<u>Mock Examinations</u>		
Spring 2	Circles 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 proportion - 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	listen to the circle song and google and discuss pi Practice Look at timetables and practice reading digital and analogues times
Assessment:	<u>Self assessment and topic tests</u>		
Summer 1	Equations 2D representations of 3D shapes Hot Spot Using a calculator	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	Use of calculator - wordy maths questions

		representation of 3D shapes - plans and views on drawings, calculating volume of 3D shapes, nets and volume and surface area - including prisms	
Assessment:			
Summer 2	Transformations Scatter Graphs Pythagoras' Theorem Trigonometry	Geometry and Measures - enlarge, rotate and translate shapes using coordinate grids, describe transformations, plot enlargements with negative and fractional scale factor Statistics - scatter diagrams - drawing diagrams and lines of best fit, using lines of best fit to find information, finding equation of lines of best fit, describing correlation Number - further development on links between fractions, decimals, percentages and ratios including ordering, writing fractions as percentages or decimal, recurring decimals	Continued revision on FDPR - fraction - decimal - percentage - ratio topics using mymaths, BBC Bitesize or other sites given in class