Curriculum overview for Year 11 (Crossover Term 1)

Term	Autumn 1									Autumn 2					
Topic	**Area Perimeter Volume**	**Equations**	**Algebra Graphs**	**Simultaneous Equations**	**Trigonometry**	**Fractions, Decimals, %**	**Percentages**	**Powers & Standard Form**	**Speed, Distance, Time**	**Venn Diagrams**	**Algebra**	**Ratio & Proportion**	**Angles**	**Probability**	**Equations**
Knowledge	Formulae and application: perimeter, area, surface area, volume. KO 3, 53 (19, 26)	Form & solve linear equations KO 1,30, (36)	Recognise, plot & use: Linear, Quadratic, Cubic. KO (1) 40, 57	Form & solve KO 61	Basic trig (SOHCAHTOA) Finding missing sides & angles KO 69	Conversion. Diagrams. Fractions with time. KO 8, 10, 18	Basic % methods. Compound % Depreciation Reverse % KO 29, 38	Rules for x/÷ with powers. Read, write, calculate in standard form. KO 27, 31	Draw, read and use graphs. KO 37 (67)	Set notation. Venn Diagrams for problem solving (PS). KO 16,33	Factorise & solve quadratics. Simple proof. KO 47, 62	Basic ratio. Density Proportional reasoning. Best buys. Exchange rates. KO 12	Angle reasoning. Basics, parallel lines, polygons. KO 2, 34, 35, 46	Terminology. Number lines Exclusivity. Probability tree diagrams KO 11, 42	Form & solve linear equations and inequalities. KO 30
Skills	Memorise formulae Substitute in formulae. Shape properties	Form & solve. Substitution.	Graphing. Substitution.	Form & solve. Substitution.	Use of calculator functions. Angles.	Arithmetic Basic FDP facts & methods.	Memorise, distinguish and apply methods. Sense of number.	Algebraic conventions. Powers of 10.	Graphing methods.	Memorise/ apply symbolism. Structured approach to PS	Algebraic methods & conventions.	Ratio conventions. Substitution in formulae.	Conventions. Reasoning. Memorise & apply rules.	Basic probability lines. Fraction decimal, % calculations.	Form & solve. Substitution. Inequality notation.
	<<<<<<<<<<<<<<<<<<CHOOSING, USING & APPLYING AND RIGOROUS REASONING SKILLS>>>>>>>>>>>>>>>>>>>>>>														
	<<<<<<< Algebraic and geometrical conventions, sense of scale, sense of shape, sense of number, arithmetic, pencil and paper methods and scientific calculator use >>>>>>>														
Key Marked Piece (Summative Assessment in bold)	Mixed mini-assessments									**PPE Round 1(3 Papers)** Mixed mini-assessments					
Vocabulary	**Area, Perimeter, Volume, Angles** Area, perimeter, surface area, volume, length, width, height, edge, face, vertex, vertices, composite, similar, **Equations, Algebra, Powers, Graphs** Linear, quadratic, cubic, simultaneous, substitution, elimination, quadratic, vertical, horizontal, axis, axes, index, indices, integer, perpendicular, parallel **Trigonometry** Pythagoras' Theorem, sine, cosine, tangent, hypotenuse, adjacent, opposite, **Fractions, Decimals, Percentages** Conversion, simple, compound, depreciation, reverse, decay, multiplier, index, increase, decrease, discount, investment, value **Speed, Ratio & Proportion** Stationary, horizontal, vertical, positive, negative, gradient, slope, rise, step, constant, varying, curve, density, volume, mass, proportion, best value, exchange rate. **Probability Trees & Venn Diagrams** Branch, node, event, outcome, set, Universal Set, element, member, intersection, union, empty set														

Curriculum overview for Year 11 (Crossover Term 2)

Term	Spring 1								Spring 2		
Topic	**Directed Numbers**	**Inequalities**	**TERRible Transformations**	**Data**	**Construction & Locus**	**Sequences**	**Rounding & Limits**	**Pythagoras' & Trigonometry**	**2D & 3D Shapes**	**Bills & Shopping**	**Vectors**
Knowledge	Substitute directed numbers in scientific formulae. Solve problems. KO 23	Form and solve simple inequalities. Draw/interpret inequalities on number lines. KO 45 BOOKLET	Draw and recognise individual and combined transformations. KO 15	Interpret and apply DH methods and appearance of graphs. Compare data sets. BOOKLET	Use compasses and straight edge to construct loci. Apply constructions to problem solving. KO 7,48	More complex linear sequences. Quadratic sequences. Differencing method. T_n notation. KO 28, 54	Identify upper/ lower bounds. Apply in problem solving. KO 41	Recall and use all formulae. Problem solving with P & T. KO 69	Shape properties & symmetries. Plans & elevations. Nets. Drawing on square, plain and isometric paper. KO 7,19,26	Household bills. Calculating with money. --	Draw a vector. Add, subtract vectors. Multiply vectors. Find resultant vectors. Calculate magnitude. KO 65
Skills	Types of numbers. Rules for +/-/ x/÷ negative numbers. Arithmetic.	Algebra conventions. Inequality notation. Drawing.	Drawing skills. Memorise rules.	Graphing. All previous DH topics.	Use of mathematical equipment, drawing	Algebraic conventions. Pattern spotting. Use of algorithm or model.	Inequality notation. Rounding to dp and sig figs. Memorise rules for calculating.	Use of calculator functions. Angles.	Names and basic properties. Drawing skills.	Arithmetic.	Interpret vector notation (from transformations). Basic algebraic conventions for adding & subtracting.
	<<<<<<<<<<<<<<<<<<CHOOSING, USING & APPLYING AND REASONING SKILLS>>>>>>>>>>>>>>>>>>>>										
	<<<<<<< Algebraic and geometrical conventions, sense of scale, sense of shape, sense of number, arithmetic, pencil and paper methods and scientific calculator use >>>>>>>										
Assessments	Ongoing mini-assessments **PPE Round 2 (3 Papers)**								Ongoing mini-assessments		
Vocabulary	**Directed Numbers, Inequalities, Rounding, Shopping** Positive, negative, increase, decrease, substitute, formula, equality, inequality, greater, less, limit, bound, minimum, maximum. **Transformations Construction. Trigonometry, Shapes, Vectors** Rotate, reflect, translate, enlarge, centre of rotation/enlargement, mirror line/line of reflection, similar, congruent, vector, sine, cosine, tangent, hypotenuse, adjacent, opposite, plan, elevation, net, rotational symmetry, column vector, Pythagoras' Theorem, magnitude. **Data** Frequency polygon, cumulative frequency polygon, box plot, median, lower quartile, upper quartile, variation, consistency, average. **Sequences** Pattern, common difference, term-to-term, position-to-term, remainder, differencing method.										

Curriculum overview for Year 11 (Crossover Term 3)

Term	Summer 1							Summer 2
Topic	**Proportional Reasoning**	**Surds**	**Fraction Decimals & %**	**Similar Shapes**	**Algebra**	**Fractions**	**Scale Diagrams & Bearings**	**GCSE Exams**
Knowledge	Basic metric conversions Compound Measures Speed Density Pressure KO 56	Square numbers and square factors. Rules for basic surds. KO 60	Common conversions. Recurring decimal to fraction proof. KO 18	Similarity and congruency. Calculating missing sides in similar shapes. KO 81	Methods for finding equation of a line, Midpoint of a line. BOOKLET	4-rules for fractions. Simple algebraic fractions. KO 8, 17, 44	Using maps and scales. Measuring and drawing simple bearings. KO 50	Revision : All topics will be re-shared with pupils via TIP cards (Targeted Improvement Plans)
Skills	Memorise scale factors and formulae. Substitution. Apply conversions when substituting.	Squares, roots. Multiples, factors.	Arithmetic methods. Algebraic conventions.	Enlargement. Multiples and factors, simple scaling/proportion.	$y = mx + c$ Halving & doubling. Sketching and plotting graphs.	Arithmetic.	Angles. Use of protractor and ruler. Drawing skills.	
	<<<<<<<<<<<<<<<<<<CHOOSING, USING & APPLYING AND REASONING SKILLS>>>>>>>>>>>>>>>>>>>>>>							
	<<<<<<<< Algebraic and geometrical conventions, sense of scale, sense of shape, sense of number, arithmetic, pencil and paper methods and scientific calculator use >>>>>>>							
Assessments	Ongoing mini-assessments Dates of Exams: Tuesday 19th May Paper 1 – Non- Calculator Thursday 4th June Paper 2 – Calculator Monday 8th June Paper 3 - Calculator							
Vocabulary	**Proportional Reasoning** Speed, distance, time, density, mass, volume, pressure, area, force, unit. **Surds, FDP, Fractions** Factor, square, root, multiple, conversion, recurring, terminating, infinite, dot notation, invert, reciprocal. **Similar Shapes, Scale Diagrams & Bearings** similarity, congruent, congruency, scale factor, North line, clockwise, anti-clockwise. **Algebra** Midpoint, endpoint, co-ordinate, gradient, intercept, line segment.							