

Year 8 Units

	Autumn (HT1 and 2)	Spring (HT3 and 4)	Summer (HT5)
Pi 2 Support	<ul style="list-style-type: none"> • Number properties and calculations – negatives, ratios and problem solving. • Shapes and measures – 3D solids, nets, surface area and volume. • Statistics - data collection sheets, bar charts and pie charts. • Expressions and equations - simplifying expressions, functions, solving equations and using brackets. 	<ul style="list-style-type: none"> • Decimal calculations - ordering, the four operations and problem solving. • Angles and lines – measuring, drawing, vertically opposite, triangles and nets. • Number properties – squares, cubes and roots, HCF & LCM, prime factor decomposition and working with brackets. • Sequences – generating and extending sequences, rules and the nth term, special sequences. 	<ul style="list-style-type: none"> • Fractions and percentages – comparing, fractions and percentages of amounts, adding and subtracting fractions. • Probability – possible outcomes, calculations, experimental and comparing probabilities.
Theta 2 Core	<ul style="list-style-type: none"> • Number – calculations, negatives, powers, roots and brackets. • Area and Volume – 3D shapes, surface areas and problem solving. • Statistics, graphs and charts – stem and leaf diagrams, tables, pie charts, scatter graphs. • Expressions and equations – expand and factorise expressions, solving one and two step equations. 	<ul style="list-style-type: none"> • Real-life graphs – distance-time graphs, line graphs, graphs of functions. • Decimals and ratio. • Lines and angles – quadrilaterals, alternate angles and proof, exterior and interior angles, solving geometric problems. • Fractional calculations – the four operations with fractions, reciprocals, mixed numbers. 	<ul style="list-style-type: none"> • Straight-line graphs – direct proportion, gradients, equations of straight lines. • Percentages, decimals and fractions – equivalent proportions, percentages of amounts, solving problems.
Delta 2 Extension	<ul style="list-style-type: none"> • Factors and powers – laws of indices, standard form, calculating and estimating. • Working with powers – Simplifying expressions, expanding and factorising, substitution and solving. • 2D shapes & 3D solids – isometric drawing, prisms, circles, cylinders and Pythagoras’ theorem. • Real-life graphs – direct proportion, distance-time graphs, rates of change. 	<ul style="list-style-type: none"> • Transformations – reflection, rotation, translation and enlargement. • Recurring decimals and percentage multipliers. • Constructions, accurate shapes and loci. • Probability – mutually exclusive events, estimated and experimental probability and probability diagrams. 	<ul style="list-style-type: none"> • Scale drawing and measures – maps, scales, bearings, congruent and similar shapes. • Solving geometry problems. • Graphs – Plotting linear and non-linear graphs, $y = mx + c$, parallel and perpendicular lines, inverse functions.
	<p><u>Assessments</u></p> <ul style="list-style-type: none"> • Each unit will include a unit assessment. • A half termly test will be based on all of the work encountered up to that point in the year. 		