Curriculum Map: KS4 – Crossover

	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Groups Taught	9GA1, 9GA2, 9PA1, 9PA2 10GB1, 10GB2, 10PB1, 10PB2 11GB1, 11GB2, 11PB1, 11PB2					
Topic	Product of Prime Factors/HCF/LCM. Real-life Multiples. Proportion - Best Value, Recipes & Exchange Rates. Rounding & Error intervals. Use of Calculator. Index Laws. Standard Index Form.	Percentages. Interest, Growth and Decay. Reverse Percentages. Ratio. Fractions. Direct Proportion.	Expand and Simplify. Factorising. Solving equations. Forming and Solving Equations. Inequalities. Changing the Subject. Sequences. Simultaneous Equations. Two Way Tables. Frequency Trees. Venn diagrams. Frequency Diagrams. Scatter graphs.	Speed/Distance/Time & Compound Measures. Statistics and Sampling. Pie charts. Probability Trees. Plans and Elevations. Constructions and Loci. Circles, Arcs and Sectors. Surface Area and Volume.	Transformations. Vectors. Congruence & Similarity in 2D. Averages. Averages from a Table / Grouped Data.	Straight-line Graphs. Non-linear Graphs. Coordinate Geometry. Pythagoras & Trigonometry. Bearings. Angles in Parallel Lines. Interior and Exterior Angles.
Intent	Ensure students are resilient learners with the ability to persevere through challenges. Enable students to become deep thinkers who can competently and confidently problem solve and reason.					
Key Knowledge	Proficiency in number skills such as multiplication and division. Be able to apply knowledge in problem solving contexts.	Build on the knowledge of percentages gained in year 7 & 8. Using the percentage multiply for interest, growth, and decay. Be able to apply add, subtract, multiply and divide fractions. Ratio as a fraction.	Build on the knowledge of algebra gained in year 7 & 8: algebra notation, factorising and solving equations.	Visualising 3-D shapes. Interpreting graphs and charts. Developing a deeper understanding of data. Developing understanding of circle properties including arcs and sectors. Understanding the difference of surface area and volume and methods for calculating for 3-D shapes	Gain knowledge in the four transformations. Understanding of data analysis using averages and range. Be able to calculate the mean from grouped data. Know the difference between similar and congruent shapes.	Solve problems involving angles on parallel lines. Solve problems using Pythagoras and Trigonometry. Understand the equation for a straight line. Understand bearings and solve problems using them.
Key Skills	Be able to multiply and divide integers and decimals.	Using the four operations with fractions. Finding a reverse percentage. Method for compound interest.	Solve linear equations. Factorise and expand expressions. Rearrange equations. Interpret and draw scatter graphs and their line of best fit.	Calculate Area. Circumference and sectors and arcs of circles. Draw and interpret pie charts. Calculate surface area of a cuboid. Volume of 3-D shapes.	To be able to rotate, reflect, translate and enlarge 2-D shapes. Calculate average and range. Calculate mean from grouped data.	Recognising corresponding and alternate angles. Label sides of a triangle and use Pythagoras and Trigonometry in 2-D. Understand y-=mx +c Calculate a bearing.

Key Vocabulary	Integers Factors Multiples Highest common Factor Lowest common multiple Primes Indices Roots Standard form	Improper fraction Mixed number Reverse Percentage Simple interest Compound interest Per Annum Percentage multiplier	Expand Simplify Factorise Solve Subject Equation Integer Variable Simultaneous Line of best fit Correlation	Average Speed Cuboid Surface Area Volume Perpendicular Bisector Density Arc Sector Circumference Plan	Vector Range Mean Mode Median Estimated Mean Enlargement Scale Factor Translation Reflection Rotation Centre or rotation	Tangent Cosine Sine Alternate angle Corresponding angle North line Gradient Y-intercept Polygon Interior angle Exterior angle
Key Reading	Sparx Maths Individual Mathematics exercise books Microsoft Teams work					
End Point	Understand and be able to apply number skills to solving problems.	Confident in tackling problem solving questions involving FDP.	To be more confident in tackling problem-solving questions on algebra.	To be able to solve multi-step problems involving 3-D shapes, circles and constructions.	Be able to apply the knowledge and skills in contextual problems.	Solve geometrical problems involving Pythagoras and Trigonometry.
Form of Assessment	End of unit assessment including section for prior learning					
Enrichment opportunities	UKMT Maths challenge UKMT team Maths challenge