Maths Curriculum Map – Year 10

Term	Units of Study	Curriculum Guidelines	Objectives
Autumn 1:	• Working with Algebra • Graphs	• Understand that the transformation of algebraic expressions obeys and generalises the rules of arithmetic • Simplify or transform algebraic expressions by collecting like terms and by expanding the product of 2 linear expressions numbers into expressions.	• Use letters to represent unknowns • Simplify or transform linear expressions by collecting like terms; multiply terms together; multiply a single term over a bracket • Use fractions in co-ordinates • Plot the graphs of linear functions, where y is given explicitly in terms of x, on paper and using ICT
Autumn 2:	• Problem Solving • Averages	• Explain and justify methods and conclusions • Identify exceptional cases or counter-examples	• Identify the necessary information to solve a problem • Solve more complex problems by breaking them down into smaller tasks/steps Draw and produce pie charts for categorical data and diagrams for continuous data, including line graphs.

Spring 1	• Fractions & Ratio	• Add and subtract fractions by writing then with a common denominator • Calculate fractions of quantities	• Use fraction notation; understand equivalent fractions, simplifying a fraction by cancelling all common factors • Order fractions by rewriting then with a common denominator.
Spring 2	• Shape, Space & Measure	• Understand that rotation are specified by a centre and an angle. • use right angles, fractions of turn or degrees to measure the angle of rotation • Understand that reflections are specified by a mirror line, translations by a distance and direction, and enlargements by a centre and positive scale factor.	• Use angle properties of triangles; understand congruence, recognising when 2 triangles are congruent. • Use 2D representation of 3D shapes and analyse 3D shapes through 2D projections and cross-sections, including plan and elevation.
Summer 1	• Probability Handling Data	• Use the vocabulary of probability in interpreting results involving uncertainty and prediction • Design and use data collection sheets for grouped discrete and	• Understand and use the probability scale. • Understand and use estimates or measures of probability from theoretical models, including equally likely outcomes, or from relative frequency.

		continuous data; collect data	
Summer 2	• Decimals • Perimeter, Area & Volume Percentages	• Convert simple fractions of a whole to percentages of the whole and vice versa, Find areas of rectangles, recalling the formula, understanding the connection to counting squares and how it extends this approach;	• Use units of measurement to calculate, estimate, measure and solve problems in a variety of contexts • Know and use the formulae for finding the area and perimeter of rectangles