Mathematics, Year 9 Foundation

Half term 1	**Unit 1 – Numbers and the Number System** Significant Figures, Standard Form (addition and subtraction) **Unit 2- Calculating** Negative numbers (square and cube), Order of operations **Unit 3 – Visualising and Constructing** Enlargement (fractional scale factor), Bearings
Half term 2	**Unit 4 – Understanding risk I** Experimental probability, Mutually Exclusive Events **Unit 5 – Algebraic Proficiency** Substitution (negatives), Law of Indices – negative powers **Unit 6 – Exploring Fractions, Decimals, Percentages** Recurring decimals (algebra), Terminating or recurring
Half term 3	**Unit 7 – Proportional Reasoning** Proportion, Ratio, Mass/Density/Volume **Unit 8 – Pattern Sniffing** Nth term (identifying), Simple Quadratic sequences **Unit 9 – Investigating Angles** Interior and Exterior Angles of Polygons
Half term 4	**Unit 10 – Calculating Fractions, Decimals, Percentages** Simple interest, Exact calculations with fractions **Unit 11 – Solving Equations and Inequalities** Linear Equations – including brackets, negatives, fractions **Unit 12 – Calculating Space** Area and Perimeter of Composite Shapes
Half term 5	**Unit 13 – Algebraic Proficiency - Visualising** Sketch Quadratic Graphs, Interpret Distance Speed graphs **Unit 14 – Understanding Risk** Expected outcomes, Theoretical and Experimental probability
Half term 6	**Unit 15– Presentation of Data** Frequency Tables, Histograms **Unit 16 – Measuring Data** Comparing data sets, calculating MMMR
Homework expectations	Students are expected to do at least one hour of homework each week which will support students in consolidating learning from lessons. This will be set using Hegarty Maths.
By the time you finish Year 9…	Students should have developed the following: · Fluent knowledge, skills and understanding of mathematical methods and concepts · Acquire, select and apply mathematical techniques to solve problems · Reason mathematically, make deductions and inferences, and draw conclusions · Comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context

Mathematics, Year 9 Higher

Half term 1	**Unit 1 – Calculating** Indices, Standard Form, Upper and Lower Bounds **Unit 2- Visualising and Constructing** Constructions and Loci
Half term 2	**Unit 3 – Algebraic Proficiency** Identities, Factorising Quadratics, Mathematical Argument **Unit 4 – Proportional Reasoning** Algebraic Proportion, Congruent and Similar Shapes
Half term 3	**Unit 5 – Pattern Sniffing** Sequences (Fibonacci), Identify and Represent Quadratic Sequences **Unit 6 – Solving Equations and Inequalities 1** Represent and Solve Inequalities
Half term 4	**Unit 7 – Calculating Space** Circles, Parts of Circles, Surface Area **Unit 8 – Conjecturing** Proof, Congruent Triangles
Half term 5	**Unit 9 – Algebraic Proficiency - Visualising** Plotting Linear Graphs, Equations of Linear Graphs, Real life Graphs **Unit 10 - Solving Equations and Inequalities 2** Solving Equations (Graphs), Simultaneous Equations
Half term 6	**Unit 11 – Understanding Risk** Tree diagrams, Relative frequency **Unit 12 – Presentation of Data** Frequency Tables, Histograms
Homework expectations	Students are expected to do at least one hour of homework each week which will support students in consolidating learning from lessons. This will be set using Hegarty Maths.
By the time you finish Year 9…	Students should have developed the following: · Fluent knowledge, skills and understanding of mathematical methods and concepts · Acquire, select and apply mathematical techniques to solve problems · Reason mathematically, make deductions and inferences, and draw conclusions · Comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context