Mathematics Foundation

Archdiocese of Liverpool

Curriculum intent:

It is the intention of St Gregory's Mathematics department to deliver a curriculum that will develop the skills set out in the National curriculum is the intention of St Gregory's Mathematics department to deliver a curriculum that will not only meet the requirements of the National Curriculum but will prepare pupils for the real world. Centred upon our belief 'Master your CRAFT, exceed your potential' our curriculum is designed to be accessible for all, challenging and enjoyable. Our five year scheme of learning enables students to build on prior knowledge; thus allowing for a smooth transition from primary years through to secondary and beyond. We want our students to leave St Gregory's with transferable skills that will enable them to solve problems, communicate, visualise, think analytically, self-regulate, reflect and more. It is through such skills that our students will not only function in society and the world of work but will become successful leaders and educators themselves having mastered their craft.

Coherence - breaking down problems into small interconnected steps
Representation and Structure – using concrete, pictorial and abstract ways to enable all pupils to access and solve problems
Analytical Thinking – providing opportunities for pupils to think through and share their ideas
Fluency and Variation – knowledge of key mathematical facts, enabling pupils to make connections and think flexibly.
Transferable Skills – equips pupils with the tools to tackle various situations in everyday life.

In doing this we endeavour to promote an appreciation of Mathematics as a creative and highly interconnected discipline. m and promote an appreciation of Mathematics as a creative and highly interconnected discipline providing the solution to some of history's most intriguing problems. Aiming to provide students with a sense of enjoyment and curiosity about the subject together with an appreciation of the beauty and power of Maths in different cultures.

We endeavour to provide support across a range of subjects with an emphasis on problem-solving and developing Mathematical fluency across the whole school curriculum, narrowing gaps that students may have with the basic numeracy skills essential within everyday life.

Year 11 (F)

	Content	Concepts and Skills
TERM 1	The Probability Scale, Frequency Trees, Listing Outcomes, Calculating, probabilities, Mutually Exclusive Events, Two-Way Tables, Experimental Probabilities, Possibility Spaces, Venn Diagrams, Simple Tree Diagrams, Harder Tree Diagrams, Using Ratio for Recipe , Questions, Value for Money, Simple Proportion, Exchanging , Money, Sharing using Ratio, Ratios, Fractions and Graphs, Increase/Decrease by a Percentage, Percentage Change, Reverse Percentage Problems Simple Interest, Compound Units, Compound Interest and Depreciation, Plans and Elevations, Bearings, Bisecting an Angle, Constructing Perpendiculars, Draw a Triangle Using Compasses, Loci	• knowledge of core principles • application of skills • problem solving • evaluation • group work • peer coaching • revision skills • examination technique
TERM 2	Simplifying - Addition and Subtraction, Simplifying - Multiplication Simplifying – Division, Expanding Brackets, Simple Factorisation, Substitution, Drawing Quadratic Graphs, Expanding and Simplifying Brackets, Rearranging Simple Formulae, Simultaneous Equations Graphically, Factorising and Solving Quadratics, The Difference of Two Squares, Roots and Turning Points of Quadratics, Cubic and Reciprocal Graphs, Simultaneous Equations Algebraically	• knowledge of core principles • application of skills • problem solving • evaluation • group work • peer coaching • revision skills • examination technique
TERM 3	Comparing Fractions, Adding and Subtracting Fractions Finding a Fraction of an Amount, Multiplying Fractions Dividing Fractions, Reciprocals, Working with Indices Standard Form, Index Notation, Negative Indices, Tessellations and Congruency, Similar Shapes, Congruent triangles, Introduction to Vectors	• knowledge of core principles • application of skills • problem solving • evaluation • group work • peer coaching • revision skills • examination technique