## 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 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

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

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

## Concepts and Skills

- knowledge of core principles
- application of skills
- problem solving
- evaluation
- group work
- peer coaching
- revision skills
- examination technique
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## Comparing Fractions, Adding and Subtracting Fractions

Finding a Fraction of an Amount, Multiplying Fractions Standard Form, Index Notation, Negative Indices, Tessellations and Congruency, Similar Shapes, Congruent triangles, Introduction to Vectors

