Year 11 Mathematics

GUNNERSBURY CATHOLIC SCHOOL

AD ALTIORA

Representation and interpretation

- ✓ Sampling
- ✓ Pie charts
- ✓ Scatter diagrams
- ✓ Grouped data and averages

Construction and loci

- ✓ Constructing triangles
- ✓ Bisectors
- ✓ Defining a locus
- ✓ Loci problems

Right-angled triangles

- ✓ Pythagoras' theorem
- ✓ Calculating the length of the shorter side
- ✓ Applying Pythagoras' theorem in real-life situations
- ✓ Pythagoras' theorem and isosceles triangles
- ✓ Trigonometric ratios
- ✓ Calculating lengths using trigonometry
- ✓ Calculating angles using trigonometry
- ✓ Trigonometry without a calculator
- ✓ Solving problems using trigonometry
- ✓ Trigonometry and bearings
- ✓ Trigonometry and isosceles triangles

Powers and standard form

- ✓ Powers (indices)
- ✓ Rules for multiplying and dividing powers
- ✓ Standard form

Non-linear graphs

- ✓ Distance-time graphs
- ✓ Velocity-time graphs
- ✓ Plotting quadratic graphs
- ✓ Solving quadratic equations by factorisation
- ✓ The significant points of a quadratic curve
- ✓ Cubic and reciprocal graphs

Revision: Geometry

- ✓ Measures and scale drawings
- ✓ Angles
- ✓ Perimeter and area
- ✓ Transformations
- ✓ Volumes and surface areas of prisms
- ✓ Constructions and loci
- ✓ Curved shapes and pyramids
- ✓ Right-angled triangles
- ✓ Congruence and similarity

Revision: Ratio

- ✓ Ratio, speed and proportion
- ✓ Percentages and compound measures
- ✓ Percentages and variation

Curved shapes and pyramids

- ✓ Sectors
- ✓ Pyramids
- ✓ Cones
- ✓ Spheres

Number and sequences

- ✓ Patterns in number
- ✓ Number sequences
- ✓ Finding the nth term of a linear sequence
- ✓ Special sequences
- ✓ General rules from given patterns

Congruency and similarity

- ✓ Congruent triangles
- ✓ Similarity

Combined events

- ✓ Combined events
- ✓ Two-way tables
- ✓ Probability and Venn diagrams
- ✓ Tree diagrams

Simultaneous equations and linear inequalities

- ✓ Elimination method for simultaneous equations
- ✓ Substitution method for simultaneous equations
- ✓ Balancing coefficients to solve simultaneous equations
- ✓ Using simultaneous equations to solve problems
- ✓ Linear inequalities

Revision: Number

- ✓ Number properties
- ✓ Approximations
- ✓ Decimals and fractions
- ✓ Powers and standard form

Revision: Statistics and Probability

- ✓ Charts, tables and averages
- ✓ Probability and events
- ✓ Representation and interpretation
- ✓ Combined events

Revision: Algebra

- ✓ Linear graphs
- ✓ Expressions and formulae
- ✓ Linear equations
- ✓ Number and sequences
- ✓ Simultaneous equations and linear inequalities
- ✓ Non-linear graphs