

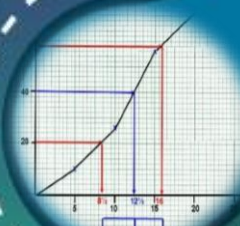
# Year 11 Mathematics

GUNNERSBURY  
CATHOLIC SCHOOL



## Sampling and more complex diagrams

- ✓ Sampling data
- ✓ Frequency polygons
- ✓ Cumulative frequency graphs
- ✓ Box plots
- ✓ Histograms



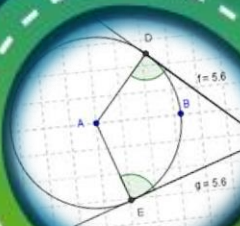
## Combined events

- ✓ Addition rules for outcomes of events
- ✓ Combined events
- ✓ Tree diagrams
- ✓ Independent events
- ✓ Conditional probability



## Properties of circles

- ✓ Circle theorems
- ✓ Cyclic quadrilaterals
- ✓ Tangents and chords
- ✓ Alternate segment theorem



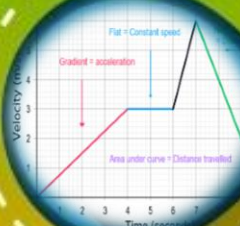
## Variation

- ✓ Direct proportion
- ✓ Inverse proportion

$y \propto x$	$y = kx$
$y \propto x^2$	$y = kx^2$
$y \propto x^3$	$y = kx^3$
$y \propto \frac{1}{x}$	$y = \frac{k}{x}$

## Graphs

- ✓ Distance-time graphs
- ✓ Velocity-time graphs
- ✓ Estimating the area under a curve
- ✓ Rates of change
- ✓ Equation of a circle
- ✓ Other graphs
- ✓ Transformation of the graph  $y = f(x)$

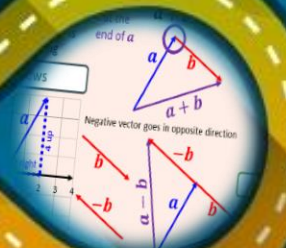
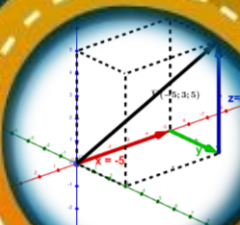


## Triangles

- ✓ Further 2D problems
- ✓ Further 3D problems
- ✓ Trigonometric ratios of angles between  $0^\circ$  and  $360^\circ$
- ✓ Solving any triangle
- ✓ Using sine to find the area of any triangle

## Vector geometry

- ✓ Properties of vectors
- ✓ Vectors in geometry

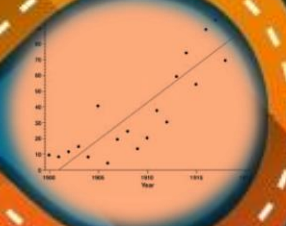


## Algebraic fractions and functions

- ✓ Algebraic fractions
- ✓ Changing the subject of a formula
- ✓ Functions
- ✓ Composite functions
- ✓ Iteration

## Revision: Number

- ✓ Fractions, ratio and proportion
- ✓ Powers and standard form
- ✓ Counting, accuracy, powers and surds



## Revision: Statistics and Probability

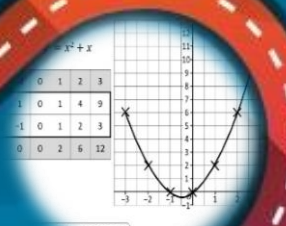
- ✓ Diagrams and averages
- ✓ Exploring and applying probability
- ✓ Sampling and more complex diagrams
- ✓ Combined events

## Revision: Geometry

- ✓ Angles
- ✓ Transformations, constructions and loci
- ✓ Length, area and volume
- ✓ Right-angled triangles
- ✓ Similarity
- ✓ Properties of circles
- ✓ Triangles
- ✓ Vector geometry

## Revision: Ratio

- ✓ Ratio and proportion
- ✓ Variation



## Revision: Algebra

- ✓ Number and sequences
- ✓ Algebraic manipulation
- ✓ Linear graphs
- ✓ Equations and inequalities
- ✓ Quadratic equations
- ✓ Graphs