

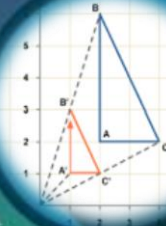
Year 10 GCSE Mathematics (Foundation)

GUNNERSBURY
CATHOLIC SCHOOL



Transformations

- ✓ Rotational symmetry
- ✓ Translation
- ✓ Reflections
- ✓ Rotations
- ✓ Enlargements
- ✓ Using more than one transformation



Probability and events

- ✓ Calculating probabilities
- ✓ Probability that an outcome will not happen
- ✓ Mutually exclusive and exhaustive outcomes
- ✓ Experimental probability
- ✓ Expectation
- ✓ Choices and outcomes



Volume and surface area of prisms

- ✓ 3D shapes
- ✓ Volume and surface area of a cuboid
- ✓ Volume and surface area of a prism
- ✓ Volume and surface area of cylinders

Solving Equations

$$3x + 5 = 11 \quad 9 = 3 \cdot \frac{x}{9}$$

$$13 - 2x = 4x - 5 \quad 0.2x + 0.3 = 15$$

$$2 + 4(3x + 2) = 2(5x + 1) + 14$$

$$x + \frac{2}{5} = \frac{82}{20} \quad 17 - 5x = 2$$

Linear equations

- ✓ Solving linear equations
- ✓ Solving equations with brackets
- ✓ Solving equations with the variable on both sides



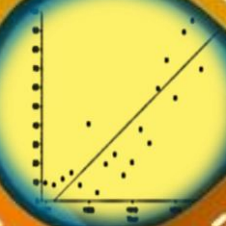
Percentages and compound measures

- ✓ Equivalent percentages, decimals and fractions
- ✓ Calculating a percentage of a quantity
- ✓ Increasing and decreasing quantities by a percentage
- ✓ Expressing one quantity as a percentage of another
- ✓ Compound measures

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

Percentages and variation

- ✓ Compound interest and repeated percentage change
- ✓ Reverse percentage (working out the original value)
- ✓ Direct proportion
- ✓ Inverse proportion



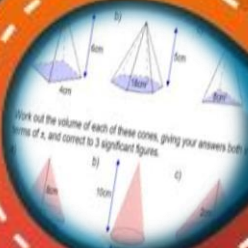
Construction and loci

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



Representation and interpretation

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



Number and sequences

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



Curved shapes and pyramids

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

To be continued
in Year 11