



St George's Academy
aiming high to achieve excellence for all

Year 11 Crossover Mathematics Journey

Career's linked to year 10 topics
 Product Design
 Video game designer
 Construction
 Dietician
 Business owner

Exams

Prior Knowledge
 Distance time graphs
 Formulae for area and volume

Prior Knowledge
 Ratio in simplest form
 Ratio in context
 Proportion word problems
 Compare prices
 VAT, profit, loss
 Simple interest

Prior Knowledge
 Draw and label axes
 Recognise $y=mx+c$
 Identify gradient
 Conversion graphs
 Distance time graph

Prior Knowledge
 Round to significant figures
 Check accuracy
 Estimate answers
 Generate sequences
 Find the nth term

Prior Knowledge
 Squares and roots
 Pythagoras Theorem
 Congruence
 Identify similar shapes
 Area and volume formulae
 Using π

Term 1

Trigonometry and Pythagoras

Congruence and similarity

Trigonometry to find missing sides

Trigonometry to find missing angles

Complex problems involving similarity

Congruence criteria for triangles

Angles of elevation and depression

Problems involving Pythagoras and trigonometry

Missing sides and angles in similar shapes

Angle problems involving congruence

Term 2

Surface Area and Volume

Formulae for spheres and cones

Surface area of pyramids

Perimeter and area of semi and quarter circles

Perimeter and area of composite shapes

Metric measures

Arcs and Sectors

Volume and surface area of prisms

Estimate calculations

Justify an estimation

Estimate area and perimeter

Arithmetic and geometric sequences

Term 3

Rounding and Estimation

Sequences

Truncation

Error intervals

Solve simultaneous equations
Continue a geometric sequence

Continue a quadratic sequence

Recognise and sketch reciprocal graphs

Find equations of lines

Plot and draw straight line graphs

Term 4

Sequences and Graphs

Quadratic and cubic graphs

Real-life graphs

Rates of pay

Direct proportion

Recognise inverse proportion

Graphical representations

Term 5

Proportion Review

Interest and Growth

Ratio as a linear function

Ratio problems in context

Problems which include fractions and percentages

Density

Pressure

Speed

Revision for Exams

Compound Measures