

Mathematics

All students will sit a summative assessment at the end of each term to track progress – scores will be given as grades using exam grade boundaries. Throughout each term students will receive mini fluency quizzes once a fortnight to assess their knowledge and identify any gaps.

Skills

Conduct and evaluate different sampling methods. Use capture recapture method

Year 11

Sampling

Skills

Use factorising to simplify fractions, use the 4 operations

Revision and Year 10 mocks

Algebraic Fractions

Skills

Calculating volume and area using scale factors

Skills

Solve 2 linear and 1 linear 1 quadratic equation simultaneously

Similarity in 2D and 3D

Simultaneous Equations

By the end of term 3 students should be able to calculate the vol and s. area of spheres, cones and pyramids.

Skills

Use Sine and Cosine rule in no right angled triangles

Coordinate Geometry

Skills

Change the subject of a formula inc use of brackets

Further Trig

Formulae

Summer Assessment

Skills

Calculating volume and surface area of 3D shapes

Surface Area and Volume

Skills

Find the equation of a line given 2 coordinates, solve problems with parallel and perpendicular line

Skills

Complete and describe translations, reflections, rotations and enlargements

Quadratics

Spring Assessment

Percentages

Transformations

By the end of term 2 students should be able to use gradient as a rate of change, fully describe any type of transformation, rearrange a formula when variable appears twice, solve a quadratic equation



Skills

Calculating percentages, increase, decrease, interest problems and reverse percentages

Compound Measures

Bounds

Direct/Inverse proportion

Skills

Solving problems algebraically

Skills

Solve problems with speed, density and pressure. Interpret velocity time graphs

Skills

Find upper and lower bounds of measurements, use these in calculations

Statistical Diagrams

Conditional Probability

Autumn Assessment

Skills

Draw and interpret cumulative frequency, box plots and histograms

Skills

Draw and use probability trees with and without replacement

Recurring Decimals

Trigonometry

By the end of term 1 students should be able to factorise and solve quadratics when $x^2 > 1$, interpret and solve problems with direct, convert between

recurring decimals and fractions, manipulate fractional indices

Surds

Skills

Convert recurring decimals to fractions and vice versa

Skills

Find unknown sides and angles in right angled triangles

Brackets

Index Laws

YEAR 10b1/b2 /y1

Skills

Simplify expressions with surds, rationalise the denominator

Skills

Expand and factorise more complex quadratics, begin to work with graphs

Skills

Simplify and estimate expressions involving fractional and negative indices