

MATHEMATICS

Student year: **Upper 4 (Yr 9)**

Head of Department: **Dr P Merisi**

AUTUMN TERM

Number	Laws of indices and standard form Fractions, percentages and decimals Percentage increase and decrease
Algebra	Linear and simultaneous equations Linear graphs Simultaneous equations: graphical methods
Data Handling	Probability – single events, two events, probability trees, Venn diagrams and sets Statistical diagrams – scatter graphs Correlation and lines of best fit Stem-and-leaf diagrams

Spring Term

Algebra	Linear, quadratic and geometric sequences Expansion of brackets Using formulae Linear and quadratic factorisation Solution of simple quadratic equations
Shape & Space	Area, perimeter and volume: formulae and applications Constructions and loci Trigonometry

SUMMER TERM

Number	Estimation and approximation
Algebra	Plotting and sketching quadratic functions Quadratic inequalities
Shape & Space	Transformations
Data Handling	Frequency and grouped frequency tables Averages, quartiles, range and IQR Cumulative frequency and box plots Frequency polygons

Throughout the Year

Use of non-calculator based methods as well as effective use of calculators –
Mental arithmetic skills and practice – Discussions – Questions – Practical tasks –
Problem-solving tasks – Investigational work on open-ended tasks.