

MATHEMATICS

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

Head of Department: **Dr P Merisi**

AUTUMN TERM

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| 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

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| 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

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|---------------|--|
| 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.