WOOTTON UPPER SCHOOL

MATHS DEPARTMENT Higher

LEARNING JOURNEY

YEAR 9

welcome

Term 1
Number – Multiplying and dividing with decimals, rounding, estimation, prime factorisation, HCF and LCM, indices, standard form and surds

Term 2
Algebra – Algebraic notation, simplifying, expanding brackets, factorisation, forming and solving equations, changing the subject, sequences

Term 3
Interpreting & Representing Data – Two-way tables, Venn diagrams, averages, bar charts, pie charts, time-series graphs, comparing data, scatter graphs

Attend Year 8 transition days

YEAR 10

Term 1
Area & Volume – Compound shapes, circles, sectors, prisms, cylinders, cones, pyramids, spheres, upper & lower bounds
Transformations – Translation, rotation, reflection, enlargement, bearings

Term 2
Equations & Inequalities – Solving quadratics, completing the square, simultaneous equations, inequalities
Probability – Combined events, mutually exclusive, relative frequency, two-way tables, tree diagrams, venn diagrams

Term 3
Multiplicative Reasoning – Multipliers, growth & decay, compound interest, density, pressure, direct/inverse proportion
Similarity & Congruence – Congruent triangles, similarity

Term 4
Fractions, Ratio & Percentage – Calculating with fractions, recurring decimals, reverse percentage, percentage change, simplifying ratios, dividing into ratios, exchange rates, map scales, recipes

Term 5
Angles & Trigonometry – Properties of shapes, angles in triangles, angles in parallel lines, angles in polygons, Pythagoras' Theorem, Trigonometry

Term 6
Graphs – Real-life graphs, distance-time graphs, velocity-time graphs, drawing linear graphs, y=mx+c, drawing quadratic graphs

YEAR 11

Term 1
More Algebra – expanding brackets with surds, rationalising the denominator, algebraic fractions, proof, functions
Vectors & Geometric Proof – Vector notation, vector arithmetic, parallel vectors, solving geometric problems

Term 2
Proportion & Graphs – Direct and inverse proportion, exponential graphs, non-linear graphs, transforming grapsh
Constructions – Constructing triangles, perpendicular/angle bisectors, loc

Term 3
Review, consolidation, Intervention and GCSE exam practice

Term 4
More Trigonometry – Trig. Graphs, exact trig. Values, sine & cosine rules, area of a triangle
Further Statistics – Sampling, cumulative frequency, box plots, histograms

Term 5
Equations & Graphs – Simultaneous equations graphically, inequality graphs, quadratic graphs, cubic graphs, iteration
Circle Theorems – Circle theorems, equation of tangents

Term 6
Review of Year 9 and Year 10

Term 4
Review, consolidation, Intervention and GCSE exam practice

Term 5
Review, consolidation, Intervention and GCSE exam practice

Firm up your post 16 pathway

Continue your lifelong love of learning and personal development

POST-16 PATHWAY