Mathematics in the Third Form at Bruern Abbey Senior School

The Third Form sees the boys start their iGCSE curriculum. We feel the iGCSE, which allows the use of a calculator on both papers and has a slightly more accessible language base, is the best GCSE option for Bruern boys.

Some boys will move straight onto the Higher Tier curriculum whilst other will focus initially on the Foundation Tier. On the Higher Tier papers scores from Grade 3 to Grade 9 can be obtained, whilst on the Foundation Tier the range is from Grade 1 to Grade 5.

We follow the Pearson/Edexcel curriculum.

Boys will have seven lessons a week and in addition homework will be set once during the week. Homework will usually be of a revision nature as our boys need to have core skills being reinforced on a regular basis.

The plan overleaf gives the topic schedule for the year. You can see that some of the major GCSE topics will be covered in this period, so it is important that boys get into the groove pretty quickly.

Jed McCarthy and Steve Phillips.

Third Form Maths (Higher) 2023/24

Michaelmas	Lent	Summer
Unit 1 - Number • Number problems and reasoning • Place value and estimating • Highest Common Factor and Lowest Common Multiple • Products of prime factors • Indices including zero, negative and fractional. • Powers of ten and Standard Form • Surds **Unit 2– Algebra** • Algebraic Indices • Expanding and factorising. • Equations • Formulae • Linear sequences including nth term • Non-linear sequences	**Unit 3 -Interpreting and Representing Data** • Statistical Diagrams • Time series • Scattergraphs and lines of best fit • Averages and range **Unit 4 -Fractions, Ratio and Percentages** • Fractions (all processes) • Ratio and proportion • Percentages (all processes) • Links between, and to and from converting fractions, decimals and percentages. **Unit 5 – Angles and Trigonometry** • Properties of triangles and rectangles • Interior and Exterior angles • Pythagoras • Trigonometric ratios and their application in finding missing sides and angles	**Unit 6 – Graphs** • Linear graphs • Graphing rates of change • Real-life graphs • Quadratic graphs • Cubic and reciprocal graphs. **Unit 7 – Area and Volume** • Perimeter and area • Units and Accuracy • Prisms • Circles - area and circumference • Sectors of circles • Cylinders, spheres, pyramids and cones **Unit 8 – Transformations & Constructions** • 3D Solids • Reflection, rotation and enlargement • Combinations transformations • Scale drawing and bearings • Constructions and loci