



St Benedict's Catholic School

The Catholic Secondary School for West Suffolk

MATHS CURRICULUM GUIDE

Year 10 Autumn

Using 4 operations with numbers involving decimals and negative numbers.
Express a number as a product of prime factors; find HCF & LCM.
Simplify algebraic expressions; expand and factorise.
Use multiplier method to calculate values after a percentage change efficiently on a calculator. Find original amount. Know the difference between simple & compound interest.
Simplify fractions; use 4 operations to solve problems involving fractions.
Use direct & inverse proportion to solve problems.
Revise simple angle facts & extend to properties of angles in polygons.
Know properties of triangles & special quadrilaterals; construct these using compasses & straight edge.
Recognise common 3-D shapes & know how to identify planes of symmetry.
Organise data using stem & leaf plots & display data using pie charts and frequency polygons.
Understand that probability is measured on a scale from 0 to 1, and calculate the probability of compound events using a probability tree.
Calculate averages of small data sets.

Year 10 Spring

Revise 4 operations with fractions, including simple algebraic fractions.
Generalise patterns & sequences algebraically, including quadratic sequences.
Solve linear equations & inequalities; factorise quadratic expressions and solve simple quadratic equations.
Use applications of percentage change in financial situations including compound interest and finding the original amount.
Set up and solve simultaneous linear equations.
Use coordinates with transformations and applications of Pythagoras's theorem.
Recognise $y = mx + c$ as the general form of a linear graph.
Read scales accurately & convert between different common units, including metric to imperial.
Find area & perimeter of compound shapes, including circles and using Pythagoras' theorem.
Find volume & surface areas of common 3d shapes, including triangular prisms and cylinders.
Solve problems using trigonometry, including isosceles triangles, bearings and angles of depression & elevation; Use scatter graphs to investigate correlation; Use moving averages to smooth out fluctuations in Time series graphs.

Year 10 Summer

Finding the n th term of a sequence; identifying next few terms in a sequence including quadratic sequences;
Solve problems involving financial capability, inc AER; Real life graphs;
Using Excel spreadsheets, including mortgages investigation;
Using algebra to generalise complex situations.
Transform shapes using combined operations.
Using Autograph/Geogebra

Understand Permutations & Combinations and use them to find the probability of more complex events.

Finishing off/catching up

REVISION AND EXAMS

Half termly assessments will be given, in the form of past paper questions. Revision sheets are posted on the vle.

Homework will be set once a week, one piece from each teacher per fortnight. Each piece should last about 40 minutes and may be an exercise from 'mymaths' or a worksheet. All students have a personal login to mymaths.

Homework details should be written on the homework record sheet in the front of the student's exercise book. Each student should keep their homework record updated, with the mark awarded - A means fully understood, B means largely understood and C means that there were problems with this technique/skill. Students should make use of this 'traffic light' system when they come to revise for the half termly test. Grades for the test should be recorded on the student's record sheet, in the front of their exercise book.