Year 10 Summer Term Maths Curriculum

Students in Year 10 study different content dependent upon their class. The classes will spend approximately two weeks studying each topic.

Miss Robinson, Mr Hammond and Mr McClusky	
Formulae	Formulae are used to solve a variety of problems before the technique of changing the subject of a formula is introduced and applied in a variety of contexts.
Probability	Different ways of writing probabilities are studied before looking at probability questions involving mutually exclusive events, two-way tables, frequency trees, Venn diagrams and expectation.
Transformations	Students transform shapes using reflections, rotations and translations. The reverse process of describing transformations is also considered as well as combining various transformations.
Maps, bearings and loci	Scales on maps are used to solve problems before students look at how to use and draw bearings. Construction techniques are then studied before being applied to solve loci problems.
Review of Year 10 work and summative tests	Students review all work completed in Year 10 before completing a complete set of GCSE maths Foundation level papers covering all of their work from throughout their time at school. Time will then be spent analysing and evaluating their performance.

Mr Storey-Scott	
Algebraic proof	Students start by looking at what constitutes an algebraic proof and the associated language. They then look at proof involving multiples, odd and even numbers and consecutive numbers.
Quartiles and cumulative frequency	Students look at methods for finding quartiles and medians from both discrete and continuous data, using these to construct box plots. They then look at how to draw cumulative frequency curves and use these to compare data.
Further Volume and surface area	Building on work from the previous year students look at formulae for finding the volume and surface area of pyramids, cones and spheres.
Vectors	Students look at how column vectors can be used to describe the movement between two positions and associated arithmetic operations. They then consider parallel vectors including questions expressed algebraically.
Review of Year 10 work and summative tests	Students review all work completed in Year 10 before completing a complete set of GCSE maths Foundation level papers covering all of their work from throughout their time at school. Time will then be spent analysing and evaluating their performance.

Mr Bullock and Mrs Joseph	
Graphs of inequalities & linear programming	Students look at how both linear and quadratic inequalities can be expressed graphically and how these graphs can subsequently be used to find solutions.
Quadratics and identities	Building on previous work on quadratics, students factorise expressions and solve equations involving coefficients of x^2. Students then go on to expand triple brackets solve problems involving identities
Further data analysis	Students look at different sampling techniques before looking at how to find trends in data they have collected. Histograms are then both drawn and interpreted.
Fractional indices, estimating powers and bounds	Building on previous indices work students develop understanding of fractional indices and equations involving them. Bounds and techniques for estimating powers are also studied.
Review of Year 10 work and summative tests	Students review all work completed in Year 10 before completing a complete set of GCSE maths Foundation level papers covering all of their work from throughout their time at school. Time will then be spent analysing and evaluating their performance.

After completing each topic students complete an assessed homework task which is recorded in the front of their yellow assessment books.

Results of tests are recorded in the back of student's yellow assessment books.