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.

Mr Bullock, Mr McClusky, Mrs Loveridge	
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.
End of Year tests and feedback	Students will sit 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. These tests will take place in the weeks beginning 14th June and 21st June.
Volume and surface area	The concepts of volume and surface area of 3d solids are defined. Students then apply these ideas by looking at problems involving cuboids, prisms and cylinders.

Mrs Joseph	
Sequences	Work on arithmetic sequences is built upon with students now studying both geometric and simple quadratic sequences; this includes finding and using nth term rules.
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.
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Mr Ahluwalia, Mr Storey-Scott	
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.
End of Year tests and feedback	Students will sit 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. These tests will take place in the weeks beginning 14th June and 21st June.
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.

After completing each topic students complete an assessed piece of work in their yellow assessment book.