Curriculum Map – Maths – Year 11

Immanuel College
Church of England Academy

Text in red applies to higher only

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6
Key focus	Gradients and Lines Non-Linear Graphs Using Graphs	Expanding and factorising Changing the subject Functions	Multiplicative reasoning Geometric reasoning Algebraic reasoning	Transforming and constructing Listing and describing Show that...	Revision	Revision
Key knowledge and skills	Equations of vertical and horizontal lines, Plotting and interpreting graphs Finding the equation of a line from a graph, from two points Solve simultaneous equations graphically Plot and read and recognise quadratic, cubic and reciprocal graphs Identify and interpret roots and intercepts of quadratic Reflect shapes given lines Construct and interpret graphs Recognise and interpret proportion graphs Recognise parallel and perpendicular lines Find the equation of parallel and perpendicular lines Exponential and circle graphs Equation of a tangent to a curve	Expand brackets Factorise quadratics Solve quadratics by factorisation Solve equations and inequalities Change the subject of a formula Form and Solve equations in the context of shape Function machines Function notation Graphs of quadratic functions Factorise complex quadratic expressions Complete the square Solve by quadratic formula Change the subject where the subject appears more than once Solve by iteration Composite functions Inverse functions	Use scale factors Direct and inverse proportion Basic angle rules Parallel and Perpendicular Lines, interior and exterior angles Vectors nth term Linear simultaneous equations Use rules for sequences Construct direct and inverse proportion equaltions Ratio problems Circle Theorems Solve simultaneous equations with one quadratic Formal proof Two variable inequalities	Perform transformations Identify transformations Perform standard constructions Lists, sample spaces, venn diagrams Plans and elevations Compare data, compare scatter diagrams Number Algebra Shape and angles Negative enlargements Invariant points Translations and reflections of graphs including trigonometric graphs Product rule for counting Vectors Congruent triangles		

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		Quadratic inequalities				
Key words/ vocabulary	Gradient Linear Horizontal Vertical General equation Non-linear Y-intercept X-intercept Graphing lines Applications of gradients and lines	Brackets Common factors Highest common factor (HCF) Factors Quadratic expressions Difference of 2 squares Sum Product Inverse Rearrange Function Input Output	Ratio Proportion Share Parts Direct proportion Inverse proportion Parallel Perpendicular Co-interior Alternate Corresponding Vector Direction Magnitude Scalar Column vector Equation Inequality Bound Radius Diameter Chord Bisect Centre Circumference	Transformation Translation Reflection Invariant Vertical Horizontal Reflection y-axis x-axis Enlargement Bisect Construct Plan Side elevation Data Spread Sample Average Proof Combination		
Assessment method	Topic Assessments (Formative)	Topic Assessments (Formative) Summative assessment GCSE	Topic Assessments (Formative)	Topic Assessments (Formative) Summative assessment GCSE		
Wider links	Distance time Speed time (Science)	Functions (Computer science)	Forces (Science) Programming (Computer Science) Measuring ingredients (Tech)	Comparing data (Science) Forces (Science)		
Enrichment opportunities	Further maths GCSE Tabletop games club www.nrich.maths.org problems Suggested further activities: STEM outreach team at the University of Leeds, Bletchley Park, Bank of England Museum, The Royal Observatory					
Careers links	Analyst (data, investment, …), engineer, architect, actuary, accountant, software engineer, maths teacher					