

Hartford Church of England High School – Year 10 – Maths - Higher

Year 10	HT1	HT2	HT3	HT4	HT5	HT6
Topic(s)	Pythagoras and Trigonometry Recurring Decimals Fractional and Negative Indices Product Rule for combinations Calculations with Bounds Calculating with Surds	Expanding & Factorising Quadratic Equations Rearranging Equations Sequences - Recognising types of sequences and n^{th} term of linear and quadratic sequences Forming and Solving Equations	Simultaneous Equations Solving Quadratics including the Formula, completing the square and Iteration Direct & Inverse Proportion - representing and solving problems algebraically	Plotting coordinates in 4 quadrants Finding the midpoint of a line segment Equation of a line ($y=mx+c$) including that of parallel and perpendicular lines Graphs of linear, quadratic, cubic, and reciprocal functions - recognise, plot and sketch Circle Geometry - recognise and construct graphs of a circle	Frequency Diagrams Scatter Graphs Algebraic Fractions Relative Frequency Probability - Mutually Exclusive, Dependent and Independent Events Conditional Probability Probability Tree Diagrams Venn Diagrams and Set Notation	Describe and perform transformations Plans and Elevations Constructions and Loci Circles, arcs and sectors Surface area and volume of 3D shapes Similarity and congruence in 2D Similarity with Area and Volume
Focus	Combinations in real life contexts Linking bounds to other topics Considering bounds in real life and problem-solving contexts	Solve problems involving sequences from real life situations Form and solve equations in various contexts e.g. area, probability Relate algebraic solutions to graphical representations	Solve simultaneous equations representing real-life situations Interpret solutions in the context of the problem Solve word problems involving direct and inverse proportion Use graphical representations of direct and inverse proportion to solve problems in context Interpret equations that describe direct and inverse proportion	Interpret and analyse information presented in linear graphs Interpret graphs of quadratic functions from real-life problems Solve equations representing a real-life situation graphically, and interpret the solution in the context of the problem	Recognise relationships displayed in frequency diagrams Use scatter graphs to investigate correlation in context Probability in real life Problem solve with probability	Link transformations to similarity and congruence Use constructions to solve real life loci problems Problem solve with circles, arcs and sectors Real life context for surface area and volume
Vocabulary	Evaluate, Estimate, Index, Equivalent, Integer, Product,	Unknown, Solve, Solution, Collect, Simplify, Bracket, Form, Expand, Express,	Inverse, Direct, Iteration, Proportion, Constant, Variable, Substitution	Quadratic, Linear, Cubic, Reciprocal, Parallel, Perpendicular,	Frequency, Data, Relationship, Correlation, Mutually Exclusive, Dependent,	Enlargement, Rotation, Reflection, Symmetry, Translation, Vector, Plans, Elevations,

