

Hartford Church of England High School – Year 11 – Maths - Foundation

Year 11	HT1	HT2	HT3	HT4	HT5	HT6
Topic(s)	Indices, powers and roots Index laws Standard form Transformations Vectors	Constructions Pythagoras Theorem Solving equations Simultaneous equations Trigonometry	Speed/Distance/Time Draw real life graphs Quadratic and Cubic graphs Similarity and congruence in 2D Direct and Inverse Proportion	Revision	Revision	Revision
Focus	<ul style="list-style-type: none"> • Find squares and cubes • Use index notation for squares and cubes; • Recognise powers of 2, 3, 4, 5; • Evaluate expressions involving squares, cubes and roots: • Add, subtract, multiply and divide numbers in index form; • Use index notation for powers of 10 • Use the square, cube and power keys on a calculator; • Use the laws of indices to multiply and divide numbers written in index notation • Use numbers raised to the power zero, including the zero power of 10; • Convert large and small numbers into standard form and vice versa; • Add and subtract numbers in standard 	<ul style="list-style-type: none"> • Use straight edge and a pair of compasses to do standard constructions: • Use constructions to solve loci problems including with bearings; • Understand, recall and use Pythagoras' Theorem in 2D, including leaving answers in surd form; • Find the length of a shorter side in a right-angled triangle; • Solve simultaneous equations • Understand, use and recall the trigonometric ratios sine, cosine and tan, and apply them to find angles and lengths in general triangles in 2D figures. 	<ul style="list-style-type: none"> • Understand and use compound measures: • density; • pressure; • speed: • Read values from straight-line graphs for real-life situations; • Find the gradient of a straight line from real-life graphs; • Draw straight line graphs for real-life situations • Interpret distance–time graphs, and calculate: the speed of individual sections, total distance and total time; • Use the basic congruence criteria for triangles (SSS, SAS, ASA and RHS); • Visually identify shapes which are congruent 			

