

YEAR 10 CURRICULUM MEDIUM TERM PLAN – MATHS (H 3YR Yr 10 Sept 22)



TOPIC	KEY LEARNING	ASSESSMENT
HT1: Transformations & Constructions HT 1: Equations & Inequalities	Plans and elevations. Reflections. Rotations. Enlargements (including fractional and negative scale factors). Translations. Combining transformations. Scale drawings. Bearings. Constructing triangles. Constructions. Loci. Solving linear inequalities. Solving quadratic equations by factorising & roots. Solving quadratics using the formula. Solving quadratics completing the square. Solving simultaneous equations. Solving linear and quadratic simultaneous equations.	<u>Assessment on</u> Transformation & Constructions Equations & Inequalities
HT 2: Probability HT 2: Multiplicative Reasoning	Combined events. Mutually exclusive events. Experimental probability. Independent events. Tree diagrams. Conditional probability. Venn Diagrams and set notation. Growth and decay. Percentage change. Iterative process. Convert metric speed measures. Calculate speed and acceleration. Bounds. Kinematics formulae. Density mass & volume. Pressure force and area. More compound measures. Relationships in Ratio. Direct Proportion Indirect Proportion	<u>Assessment on:</u> Probability Multiplicative Reasoning
HT 3: Similarity and Congruence	Congruence of triangles. Conditions of congruency and their use to prove shapes are the same. Similarity, ratios and scale factors. Finding missing lengths on similar shapes. Linear scale factors and area scale factors. Similarity in 3d solids using lengths, areas and volumes..	<u>Assessment on:</u> Similarity and Congruence
HT 4: More Trigonometry	Accuracy and bounds in trigonometry. Graphs of the sine, cosine and tangent function. Calculating areas of triangles using $\frac{1}{2} ab\sin C$. Calculating and using the sine rule. Calculating segments of circles. Using the cosine rule to find angles or sides. 3d Pythagoras' Theorem. Trigonometry in 3d. Function change & trigonometric graphs	<u>Assessment on:</u> More Trigonometry
HT 5: Further Statistics	Random Samples. Using samples to predict results for populations. Capture-recapture. Draw cumulative frequency tables and graphs. Interpret cumulative frequency tables and graphs using quartiles. Box plots. Drawing histograms. Interpreting histograms. Comparing and describing distributions.	<u>Assessment on:</u> Further Statistics
HT 6: Equations and Graphs	Solving simultaneous equations graphically. Representing and interpreting inequalities graphically. Find roots of equations. Sketch quadratics. Using quadratic graphs and their roots. Solving quadratic inequalities. Cubic equations, roots and sketching. Solve quadratics and cubics using Iteration.	<u>Assessment on:</u> Equations and Graphs

