Curriculum Maps – Year 10

Maths Higher

Overview of the year: Number Algebra Ratio and Proportion Geometry and Measures Statistics and Probability			**Ways to consolidate and extend your learning in Maths:** Can use Maths genie questions & worked solutions. Use of Corbett- Maths Use of Maths Watch Weekly Hegarty maths HW with assigned 'fix up five' clip numbers Use Lesson PPTs and revision specific materials uploaded on Microsoft Teams.	
Half Term	**Unit title**	**Knowledge**	**Skills**	**Assessment**
1	Number- 1 Algebra- 1 Statistics- 1	Combinations and permutation's, estimation, place value, prime factors, powers and roots, index laws, negative & fractional indices, standard form, rational and irrational numbers, surds. Rationalise a denominator, algebraic notation. Write and simplify expressions, index laws, formulae, substitution, expand brackets, factorise algebraic expressions & quadratics, write expressions and simple formulae to solve problems, arithmetic, geometric and quadratic sequences. Tables and data collection sheets, bar charts, line graphs and histograms, time series graphs, trends, stem and leaf, pie charts, scatter graphs. Averages & tables.	Basic number skills, Can solve problems by applying their mathematics to a variety of routine and non-routine problems. Can break down problems into a series of simpler steps and preserve in seeking solutions. Graphical/statistical skills – analysing data from graphs	Mid-phase assessment Weekly homeworks
2	Number-2 Geometry and Measures -1	Compare, multiply, divide add and subtract fractions, fraction of a quantities, convert fractions to decimals and percentages and vice versa. Use decimals to find quantities. Percentage change. Compare, share and solve problems with ratios. Angles in triangles, quadrilaterals, regular and irregular polygons. Pythagoras theorem and trigonometry	Basic number skills, Can solve problems by applying their mathematics to a variety of routine and non-routine problems. Can break down problems into a series of simpler steps.	Mid-phase assessment Weekly homeworks End of term written assessment
3	Algebra- 2 Geometry and Measures -2	Recognise, draw and interpret straight line graphs, distance time graphs and real-life graphs. Draw and interpret quadratic, cubic and reciprocal graphs, graphs of circles. Perimeter & area of compound shapes, conversion of units, circumference and area of circles, arc lengths & sectors. Volumes & Surface area, pyramids & cones.	Reason mathematically, critical thinking problem solving, analytical thinking quantitative reasoning	Mid-phase assessment Weekly homeworks
4	Geometry and Measures -3 Algebra -3 Probability -1	Know how to describe and carry out all transformations, rotation, enlargement, reflection and translation. Construction, loci and bearings. Linear, quadratic and simultaneous equations. Inequalities Understand how to calculate probability, interpret and draw sample space diagrams, venn diagrams and probability trees	Can communicate, justify, argue and prove using mathematical vocabulary. critical thinking, problem solving, quantitative reasoning,	Mid-phase assessment Weekly homeworks End of term written assessment
5	Ration & proportion- 1 Geometry & Measure- 4 Geometry & Measure- 5	Multiplicative reasoning. Similarity and congruence. Bounds in trigonometry, Sine and Cosine rules, area of a triangle, 3D Pythagoras & trigonometry, trigonometrical graphs.	Can solve problems by applying their mathematics to a variety of routine and non-routine problems. Can break down problems into a series of simpler steps and preserve in seeking solutions	Mid-phase assessment Weekly homeworks
6	Statistics- 2 Algebra- 4	Sampling, quartiles, box plots and histograms Solving equations graphically	Can break down problems into a series of simpler steps and preserve in seeking solutions.	Mid-phase assessment Weekly homework Pre public examination