SUBJECT: Maths

NESTON HIGH SCHOOL

KS4 CURRICULUM PLAN

KS4 Knowledge and key skills

YEAR 10	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPIC	*Ratio & Algebra*	*Probability & Number*	*Geometry*	*Algebra & Statistics*	*Statistics & Proportion*	*Geometry*
Knowledge	Various ratio topics and expanding/factorising double brackets	Using Venn diagrams and tree diarams to calculate probabilities. Various number topics including estimating, HCF & LCM, indices and standard form.	Properties of 3D-shapes. Pythagoras Theorem. Right angled trigonometry	Linear, quadratic, cubic & reciprocal graphs. Sampling, calculating averages & range from lists and tables of data.	Various statistical diagrams drawn & interpreted, direct proportion questions.	Tranformations including enlargement.
Skills	Application of ratio knowledge into increasingly complex real-life scenarios.	Strengthem numeracy skills and understanding.	Understanding polygons and trigonometry	Understanding of the differnet types of graphs, their ket features and methods to draw and interpret from them. Use of given or collected dat to interpret results in context of the question.	Application of mathematical techniques and representations to model real life.	Understand about how each transformation maps shapes differntly.
Key Vocab	Simplify, share, expand, factorise	Estimate, approximate, index, indices, venn	Face, edge, vertex, elevation, net,	Linear, quadratic, cubic, reciprocal, hypotenuse	Direct, inverse, proportion, interpret, context	Rotation, reflection, translation, enlargement, scale factor

Key Knowledge Transfer

YEAR 11						
TOPIC	*Algebra*	*Percentages & Geometry*	*Number & Geometry*	*Geometry*	*Revision*	
Knowledge	Solving quadratic equations and simultaneous equations. Algebraic proof and changing the subject.	Various percentage questions in a real-life context. Perimeter, area, surface area and volume of various shapes.	Manipulate bounds and numbers given in standard form, compound measures.	Angles including those of polygons, parallel lines and bearings. Similarity & congruency.		

Skills	Higher level of algebra skills developed.	Increasinglt complex questions involving percentages in real-lfe scenarios.	Higher level of number skills developed.	Knowedge of angles applied into increasingly complex questions involving missing angles.		
Key Vocab	Quadratic, solution, simultaneously, prove, rearrange	Simple interest, compund interest, increase, decrease, reduction, perimeter, area, volume, surface area, prism	Bound, limits of accuracy, error interval, density, mass	Polygon, interior, exterior, alternate, corresponding, similar, congruent		