Maths- Y9

MAGHULL HIGH SCHOOL – CURRICULUM MAP

HALF TERM 5 April- May	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
TOPIC (S)	**Basic Probability**	**Basic Probability**	**Equations**	**Equations**	**Constructions and Loci**	**Constructions and Loci**	

Knowledge & Skills development	**Basic Probability**
	• record, describe and analyse the frequency of outcomes of probability experiments using tables and frequency trees (probabilities should be written as fractions, decimals or percentages)
	• apply the property that the probabilities of an exhaustive set of outcomes sum to 1
	• apply the property that the probabilities of an exhaustive set of mutually exclusive events sum to 1
	• construct theoretical possibility spaces for single and combined experiments with equally likely outcomes
	• use theoretical possibility spaces to calculate theoretical probabilities
	• enumerate sets and combinations of sets systematically, using tables, grids, Venn diagrams and tree diagrams
	• calculate the probability of independent and dependent combined events, including using tree diagrams and other representations, and know the underlying assumptions
	
	Equations
	• substitute numerical values into formulae and expressions, including scientific formulae
	• solve linear equations in one unknown algebraically
	• solve linear equations in one unknown algebraically including those with the unknown on both sides of the equation
	• solve linear equations in one unknown algebraically including use of brackets
	• rearrange formulae to change the subject
	
	Constructions and Loci
	• use the standard ruler and compass constructions:
	  ○ perpendicular bisector of a line segment
	  ○ constructing a perpendicular to a given line from/at a given point
	  ○ bisecting a given angle
	• know that the perpendicular distance from a point to a line is the shortest distance to the line
	• use the standard ruler and compass constructions to construct given figures and solve loci problems						

Assessment / Feedback Opportunities	Topic assessments	Self-assessment	Homework (written and online)	Formative teacher assessment - verbal	Retrieval practice	
Cultural Capital	Application of relative frequency in real life problems Application of Loci in real life situations (camera surveillance) Application of Pythagoras and Trigonometry to find missing lengths in constructions					
SMSC / Promoting British Values **(Democracy, Liberty, Rule of Law, Tolerance & Respect)**	Willingness to participate in, and respond to mathematical opportunities. Use of social skills in different contexts, including working and socialising with pupils from different religious, ethnic and socio-economic backgrounds.					
Reading opportunities	Murderous Maths, Marvellous Maths, Launch a rocket into space					
Key Vocabulary	Probability, exhaustive events, mutually exclusivity, likelihood, outcomes, events, combinations, experiment, frequency, frequency-tree, equation, expression, identity, formulae, unknown, inverse operations, solve, locus, loci, construct, bisect, perpendicular, equidistant.					
Digital Literacy	Desmos, Geogebra, DFM, Mathspad, MSteams					
Careers	Business, Finance, Architect, Statistician, Building, Engineer, Researcher, Design, Engineering.					