Maths- Y12

MAGHULL HIGH SCHOOL – CURRICULUM MAP

HALF TERM 6 Jun-July	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Units							
:-Pure	**Preparation for Mocks**	**Preparation for Mocks**	**Mocks**	**Mocks**	**Review of Mocks**	**Work Experience**	
:-Statistics	**Preparation for Mocks**	**Preparation for Mocks**	**Mocks**	**Mocks**	**Review of Mocks**		
:-Mechanics	**Forces and Newton's Laws**	**Forces and Newton's Laws**	**Mocks**	**Mocks**	**Review of Mocks**		

Topics to be Reviewed.

Pure

- Algebraic manipulation
- Polynomials and the Binomial Theorem
- Differentiation
- Integration Trigonometry
- Exponentials and Logarithms
- Argument and Proof

Statistics

- Sampling
- Central tendency and spread
- Single-variable data
- Bivariate data
- Probability
- Binomial distribution
- Formulating a test
- The critical region

Mechanics

Understand types of force, including, normal reaction force, tension in a string or a rod, thrust in a rod, weight and friction. Know that the resultant force acting on a body is zero if a body is in equilibrium and be able to find unknown forces acting on bodies that are at rest or moving with constant velocity. Be able to model forces as vectors and to find the resultant of several forces acting at a point. Use $F = ma$ for constant mass and constant force
Understand that objects can be modelled as particles and comment on the relevance of any modelling assumptions made. Understand the distinction between mass and weight. In questions where a numerical value for g is needed, students will be clearly told which approximation to use and their answers should then be given to an appropriate degree of accuracy. When deciding on the degree of accuracy to use in their answers, students should be guided by the accuracy of the data given in the question.
In questions involving objects in motion under gravity it will be assumed that: g remains constant, objects can be treated as particles and resistance forces are negligible
Understand and use Newton's third law; equilibrium of forces on a particle and motion in a straight line (restricted to forces in two perpendicular directions or simple cases of forces given as 2-D vectors); application to problems involving smooth pulleys and connected particles; resolving forces in 2 dimensions; equilibrium

		of a particle under coplanar forces.