

Maths- Y9

MAGHULL HIGH SCHOOL – CURRICULUM MAP



HALF TERM 4 Feb-March	Week 1	Week 2	Week 3	Week 4	Week 5		
TOPIC (S)	Perimeter and Area	Perimeter and Area Assessment	Circumference and Area	Circumference and Area Ratio and Proportion	Ratio and Proportion		
Knowledge & Skills development	<p>Perimeter and Area</p> <ul style="list-style-type: none"> identify properties of the faces, surfaces, edges and vertices of: cubes, cuboids, prisms, cylinders, pyramids, cones and spheres calculate the perimeter of 2D shapes and composite shapes find the surface area of pyramids and composite solids know and apply formulae to calculate area of: <ul style="list-style-type: none"> triangles parallelograms trapezia <p>Circumference and Area</p> <ul style="list-style-type: none"> identify and apply circle definitions and properties, including: centre, radius, chord, diameter, circumference, tangent, arc, sector and segment know the formulae: <ul style="list-style-type: none"> circumference of a circle = $2\pi r = \pi d$ area of a circle = πr^2 calculate the perimeters of 2D shapes, including circles and composite shapes calculate areas of circles and composite shapes calculate the surface area of spheres, cones and composite solids calculate arc lengths, angles and areas of sectors of circles <p>Ratio and Proportion</p> <ul style="list-style-type: none"> identify and work with fractions in ratio problems express one quantity as a fraction of another, where the fraction is less than 1 or greater than 1 use ratio notation, including reduction to simplest form divide a given quantity into two parts in a given part : part or part : whole ratio express the division of a quantity into two parts as a ratio apply ratio to real contexts and problems (such as those involving conversion, comparison, scaling, mixing, concentrations) express a multiplicative relationship between two quantities as a ratio or a fraction understand and use proportion as equality of ratios relate ratios to fractions and to linear functions 						

Assessment / Feedback Opportunities	Topic assessments	Self-assessment	Homework (written and online)	Formative teacher assessment - verbal	Retrieval practice	
Cultural Capital	Real life application of perimeter and area Application of proportion for recipes and value for money					
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	Solid, Net, Faces, Edges, Vertices, Area, Perimeter, Formula, Perpendicular, Compound, Circumference, Radius, Diameter, Tangent, Chord, Sector, Segment, Pi, Units, Ratio, Fractions, Proportion, Scale, Functions, Equivalent, Simplify					
Digital Literacy	Desmos, Geogebra, DFM, Mathspad, MStems					
Careers	Business, Finance, Architect, Building, Engineer, Researcher, Retail, Chef, Buyer, Retail.					