

# Maths- Y9

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## MAGHULL HIGH SCHOOL – CURRICULUM MAP



HALF TERM 3 JAN-FEB	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
TOPIC (S)	Scale Diagrams and Bearings	Scale Diagrams and Bearings	Collecting and Representing Data	Collecting and Representing Data	Scatter Graphs Basic Percentages	Basic Percentages	
Knowledge & Skills development	<p><u>Scale Diagrams and Bearings</u></p> <ul style="list-style-type: none"> <li>Use scale factors, scale diagrams and maps</li> <li>Measure line segments and angles in geometric figures</li> <li>Interpret maps, scale drawings, use of bearings</li> </ul> <p><u>Collecting and Representing Data</u></p> <ul style="list-style-type: none"> <li>interpret and construct tables, charts and diagrams, including, for categorical data:                             <ul style="list-style-type: none"> <li>frequency tables</li> <li>bar charts</li> <li>pie charts</li> <li>pictograms</li> <li>vertical line charts for ungrouped discrete numerical data</li> <li>tables and line graphs for time series data</li> </ul> </li> <li>know their appropriate use</li> <li>interpret, analyse and compare the distributions of data sets from univariate empirical distributions through appropriate graphical representation involving discrete, continuous and grouped data, including boxplots</li> <li>construct and interpret diagrams for grouped discrete data and continuous data, ie histograms with equal and unequal class intervals and cumulative frequency graphs, and know their appropriate use</li> </ul> <p><u>Scatter Graphs</u></p> <ul style="list-style-type: none"> <li>use and interpret scatter graphs of bivariate data</li> <li>recognise correlation and know that it does not indicate causation</li> <li>draw estimated lines of best fit</li> <li>make predictions</li> <li>interpolate and extrapolate apparent trends whilst knowing the dangers of so doing</li> </ul> <p><u>Basic Percentages</u></p> <ul style="list-style-type: none"> <li>define percentage as 'number of parts per hundred'</li> <li>interpret percentages and percentage changes as a fraction or a decimal, and interpret these multiplicatively</li> <li>express one quantity as a percentage of another</li> <li>compare two quantities using percentages</li> <li>work with percentages greater than 100%</li> <li>interpret fractions and percentages as operators</li> </ul>						

<b>Assessment / Feedback Opportunities</b>	Topic assessments	Self-assessment	Homework (written and online)	Formative teacher assessment - verbal	Retrieval practice	
<b>Cultural Capital</b>	Real life data for graphs Understanding of correlation and causation in real life situations Supermarket maths errors for understanding.					
<b>SMSC / Promoting British Values</b> (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.					
<b>Reading opportunities</b>	Murderous Maths, Marvellous Maths, Launch a rocket into space					
<b>Key Vocabulary</b>	Bearing, corresponding, alternate, co-interior, vertically opposite, scale, map, ratio, data, continuous, discrete, categorical, frequency, chart, diagram, grouped-data, correlation, causation, interpolation, extrapolation, line-of-best-fit, percentage, decimal, percentage, multiplier, increase, decrease.					
<b>Digital Literacy</b>	Desmos, Geogebra, Excel.					
<b>Careers</b>	Business, Finance, Architect, Building, Engineer, Researcher, Retail.					