



Subject	Year	Term										
Mathematics (Higher)	10	1										
Topic												
Number, Shape, Data & Algebra												
Content (Intent)												
<b>Prior Learning (Topic):</b> Algebra												
<ul style="list-style-type: none"> <li>• Index Laws &amp; Surds</li> <li>• Constructions</li> <li>• Pythagoras &amp; Trigonometry</li> <li>• Sampling Averages &amp; Spread</li> <li>• Box Plots &amp; Cumulative Frequency</li> <li>• Representing Data</li> <li>• Linear Graphs &amp; Inequalities</li> </ul>												
<b>Future Learning (Topic)</b> Shape and Data												
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)											
<ul style="list-style-type: none"> <li>• Use index laws</li> <li>• Evaluate numbers with fractional and negative powers</li> <li>• Use surds in exact calculations</li> <li>• Adding and subtracting surds</li> <li>• Expanding and simplifying surds, rationalise</li> <li>• Constructing triangles, bisectors and perpendiculars</li> <li>• Construct loci</li> <li>• Draw and use plans, elevations and bearings</li> <li>• Solve problems using Pythagoras theorem</li> <li>• Know exact values of sin, cos and tan at key angles</li> <li>• Solve problems using trigonometry in right angle triangles</li> <li>• Use trigonometry to calculate angles of elevation and depression</li> </ul>	<u>Ongoing Assessment</u> <ul style="list-style-type: none"> <li>• Q&amp;A in plenary</li> <li>• Mini-whiteboards</li> <li>• Self and Peer assessment</li> <li>• One written homework per fortnight</li> <li>• One online homework per fortnight</li> <li>• Feedback, Action and Challenge Time (FACT)</li> </ul>											
<ul style="list-style-type: none"> <li>• Design data collection sheet and two-way table</li> <li>• Understand methods of sampling</li> <li>• Find averages and spread</li> <li>• Draw box plots and cumulative frequency curves and find median and IQR</li> <li>• Draw frequency polygons, pie charts, scatter graphs</li> <li>• Draw a line of best fit and recognise correlation</li> <li>• Find the equation of a line and interpret gradient and intercept</li> <li>• Represent inequalities in 2 variables</li> </ul>	<u>Formal Assessment</u> Formative assessment in December											
How can parents help at home?												
Help to learn 'need-to-know' formulas Encourage use of MyMaths ( <a href="http://www.mymaths.co.uk">www.mymaths.co.uk</a> ) & MathsWatch ( <a href="http://vle.mathswatch.co.uk">vle.mathswatch.co.uk</a> ) [or MathsGenie] Practise times tables on a regular basis												
Helpful further reading/discussion (including Reading and Vocabulary Lists)												
<b>Reading</b> Direct to the following websites (logon ids will be in the front of the orange maths book); <a href="http://www.mymaths.co.uk">www.mymaths.co.uk</a> <a href="http://vle.mathswatch.co.uk">vle.mathswatch.co.uk</a> <a href="http://www.mathsgenie.co.uk">www.mathsgenie.co.uk</a>	<b>Vocabulary Lists</b> <table> <tr> <td>Loci</td> <td>Scatter Graph</td> </tr> <tr> <td>Intercept</td> <td>Inequality</td> </tr> <tr> <td>Bearing</td> <td>Gradient</td> </tr> <tr> <td>Variable</td> <td></td> </tr> <tr> <td>Polygon</td> <td></td> </tr> </table>		Loci	Scatter Graph	Intercept	Inequality	Bearing	Gradient	Variable		Polygon	
Loci	Scatter Graph											
Intercept	Inequality											
Bearing	Gradient											
Variable												
Polygon												