











<p><b>6<sup>th</sup> Form Preparation work for Core Maths</b></p> <p><b>Week 3 and 4</b></p>	 <p><b>Watch</b> 'What is Core mathematics. This will give you an idea of what is involved in the study of Core Mathematics</p> <p><a href="#">What is Core Mathematics?</a> <i>Time: 1 hour</i></p>	 <p><b>Complete</b> the worksheets 1e and 1f on graphs. Make notes as you answer them of any rules you already know and those you research.</p> <p><a href="#">1e Worksheet</a> <a href="#">1f Worksheet</a> <i>Time: 90 minutes</i></p>	 <p><b>Read</b> the article about how Maths is used in fighting pandemics. Extension: Write a short report about which measure is preferable.</p> <p><a href="#">How Can Maths Fight a Pandemic?</a> <i>Time: 1 hour</i></p>
 <p><b>Complete</b> a Thinking Hard Task to reduce the specification for the Statistics and Mechanics content of the A Level. Make a mind map to show the different topics from page 30 to 38. Extension: Start to add subject detail under the areas using knowledge from GCSE.</p> <p><a href="#">Core Mathematics Specification</a> <i>Time: 1 hour</i></p>	 <p><b>Read</b> the article on the Monty Hall problem. This is a problem considered using probability and famously used in game shows and in the film 21. The article considers why the surprising but accepted answer might not be right. Write a short report on the Monty Hall problem.</p> <p><a href="#">The Monty Hall Problem</a> <i>Time: 1 hour</i></p>	 <p><b>Watch</b> 'How can we all win'. The Royal Institution of Great Britain runs a series of lectures every Christmas by someone distinguished in their field. Several times the lectures have been delivered by a Mathematician and last year was one of those. These are interactive and really interesting! The Title of the lecture series was Secrets and Lies and the third is called How can we all win? It's all about Probability.</p> <p><a href="#">RI Christmas Lecture 3</a> <i>Time: 1 hour</i></p>	 <p><b>Complete</b> the worksheets 2a on straight line graphs, parallel and perpendicular lines and Pythagoras' Theorem. Make notes as you answer them of any rules you already know and those you research.</p> <p><a href="#">2a1 Worksheet</a> <a href="#">2a2 Worksheet</a> <a href="#">2a3 Worksheet</a> <i>Time: 1 hour</i></p>
 <p><b>Watch</b> the video from Numberphile on 5 and pi and try the maths for yourself. Pick three more Numberphile videos to watch and post about them on the Google Classroom.</p> <p><a href="#">5 and pi</a> <i>Time: 1 hour</i></p>	 <p><b>Complete</b> the worksheets 1d on inequalities. Make notes as you answer them of any rules you already know and those you research.</p> <p><a href="#">1d1 Worksheet</a> <a href="#">1d2 Worksheet</a> <i>Time: 1 hour</i></p>	 <p><b>Listen</b> to the Podcast. Explore the connection between Maths and Music by going on a tour of the La La Lab exhibition with curator Daniel Ramos. Follow the links to view some of the exhibits at the museum.</p> <p><a href="#">A Tour Through Maths and Music</a> <i>Time: 30 minutes</i></p>	