6th Form Preparation work for **Core Maths**



Time: 1 hour

What is Core Mathematics?

Watch 'What is Core mmathematics. This will give vou an idea of what is involved in the study of Core **Mathematics**

Complete the worksheets 1e and 1f on graphs. Make notes as you answer them of any rules you already know and those you research

Watch 'How can we all win' The

Read the article about how Maths is used in fighting pandemics.

Extension: Write a short report about which measure is

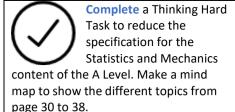
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Week 3 and 4

1e Worksheet 1f Worksheet Time: 90 minutes

How Can Maths Fight a Pandemic?

Time: 1 hour



Extension: Start to add subject detail under the areas using knowledge from GCSE.

Read 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.

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.

Complete 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.

Core Mathematics Specification

Time: 1 hour

The Monty Hall Problem

Time: 1 hour

RI Christmas Lecture 3

2a1 Worksheet 2a2 Worksheet 2a3 Worksheet

Time: 1 hour

Watch the video from Numberphile on 5 and pi and try the maths for vourself. Pick three more Numberphile videos to watch and post about them on the Google Classroom.



Complete the worksheets 1d on inequalities. Make notes as you answer them of any rules you already know and those you research.

Time: 1 hour

Listen 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.



1d1 Worksheet 1d2 Worksheet

Time: 1 hour

A Tour Through Maths and Music

Time: 30 minutes

5 and pi

Time: 1 hour