

A Level Physics - Summer Preparation work 2022

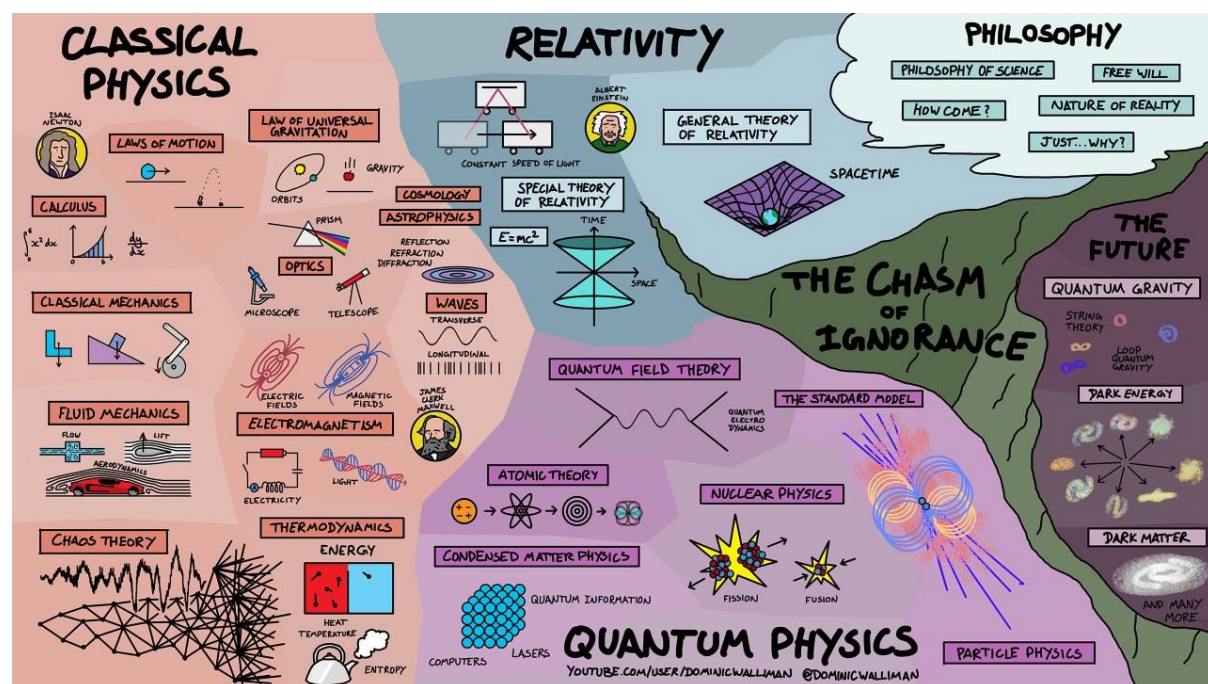
Preparation work for A Level Physics at Caterham is split into two parts:

1. Developing areas of interest
2. Practicing some problems

The first part of this is open ended and can be done at any point. The second part is better done in the later part of the holiday if possible, to warm up your brain for the start of term.

1 – Developing areas of interest

Physics has a huge number of different areas to it, and digging into one of these in some detail is extremely interesting.



One of the easiest routes into a deeper dive into different areas of Physics, other than extension classes next year, is from YouTube videos > Books or free lectures > Online courses > Problems.

The first stage of that is great to do over the summer holiday.

Task 1

Take a look at some of the YouTube channels listed below. For one video from one of the channels prepare a 2 minute explanation of why it is worth a watch, together with no more than 2 slides explaining what Physics/Engineering/Maths principles it is based on, and links to four other videos that address similar topic areas

In the first week at school you'll be invited to nominate a video to your class, explain why you have chosen it and explain the key principles it looks into. The class will vote three videos they then want to watch in class.

Physics Girl:

<https://www.youtube.com/user/physicswoman>

Mark Rober:

<https://www.youtube.com/user/onemeeeliondollars>

Smarter Every Day:

<https://www.youtube.com/channel/UC6107grRI4m0o2-emgoDnAA>

Veritasium:

<https://www.youtube.com/user/1veritasium>

3Blue1Brown:

www.youtube.com/channel/UCYO_jab_esuFRV4b17AJtAw/featured

Colin Furze:

<https://www.youtube.com/user/colinfurze>

Vsauce

<https://www.youtube.com/user/Vsauce>

Minutephysics:

<https://www.youtube.com/user/minutephysics>

Kurzgesagt:

<https://www.youtube.com/user/Kurzgesagt>

PBS Space Time:

https://www.youtube.com/channel/UC7_gcs09iThXybpVgjHZ_7g

The Slow Mo Guys:

<https://www.youtube.com/user/theslowmoguys>

2 – Practicing some problems

Please go to:

Isaacphysics.org

If you already have an account, log in, otherwise sign up. (top right)

Go to (top left) >My Isaac > My Account > Teacher connections > type in XDHWMV > Click Connect

Go to (top left) >My Isaac > My Assignments

Have a go at a minimum of three of the problems set on the A Level Preparation Problems 2022 Gameboard. Make sure to make use of the hints and related concepts listed below the problems. You do not have to get to the right answers, but you must attempt three problems.

Good luck.