
A LEVEL PHYSICS

Context:

A Level Physics is the quantitative study of the fundamental nature of matter and energy. We will study how energy and force are related and their effect on matter and its behaviour through space and time, with the ultimate goal of understanding the workings of the Universe.

The purpose of this introductory unit is to help you develop the core skills needed to solve numerical problems which will make your Year 12 Physics studies much more enjoyable and successful than they otherwise would be. Without these core skills, solving problems becomes much more difficult, a bit like trying to build a house with no wood or bricks. A bit of work before the course starts will pay huge dividends later and allow you to work and learn much more efficiently.

Reading Material:

Access will be provided to the A level textbook in September – this will provide some of the information for the bridging tasks that have been set. If you would like to engage in some relevant wider reading before the course commences, then here are my top 5 book recommendations:

QED: Richard Feynmann; *A Brief History of Time*: Stephen Hawking; *6 Easy Pieces*: Richard Feynmann; *Why does $E = Mc^2$* : Brian Cox; *A Short History of Nearly Everything*: Bill Bryson

Tasks:

You will be provided with a series of bridging tasks to help you get ahead with some of the key language and concepts that we will cover in the A-level. The task pack and associated quizzes will be provided via Edmodo.

What to watch:

There are lots of Physics lectures from TED Talks – subscribe yourself to anything Physics related! Lots of Richard Feynman's historic lectures are readily available through YouTube or other online channels. BBC Horizon has lots of Physics-related episodes available on the iPlayer. There are also loads of snippet videos on Relativity, Dark Energy and Matter, Quantum Physics, String Theory etc. on YouTube, some better than others.

Further suggested videos will be added to the Edmodo group. You are encouraged to share any interesting ones that you find too.

Where to sign up:

If you are interested in studying A-level Physics then please sign up to the Edmodo group '2020Physics@Kings' **The class code for this is: 5ejrv6**