Transitioning to A-level Physics

Making use of this document

Welcome, and congratulations on your solid choice of A-level. Your future is bright.

The majority of this document is guidance and transition activities recommended by the exam board. But the first two pages provide some information specific to Lawnswood that we think would be of benefit.

I would recommend you read the full thing first. Then have a go at the 15 activities (doesn't have to be all in one go) just to refresh the GCSE maths and physics that you will be needing to use again.

After that it is a good idea to start looking at the recommended additions outlined below. The more familiar you are with these now, the easier it will be to make use of them as you need they whilst studying.

I have also included contact details of the A-level Physics team below. We welcome any questions, requests for help with the activities (of the answers when you are ready) or feedback.

The A-level Physics team

If you are studying at Lawnswood you will be taught by two teachers, though we often switch up the teaching pairing between Y12 and Y13.

Feel free to contact any of us with any of your questions.

The team is –

Iain Bamford - iain.bamford@elawnswood.co.uk

Jess Batey - jess.batey@elawnswood.co.uk

Mai Storf - mai.storf@elawnswood.co.uk

Rosalind Jack - rosalind.jack@elawnswood.co.uk

Our recommendations beyond the AQA transition guide

There is an awful lot of choice our there now, this specification is a popular one and has been running for several years so a number of books and websites all target their support towards AQA A-level Physics.

Textbook

The book that we recommend as your main text book is:

: CGP - New A-Level Physics for AQA: Year 1 & 2 Student Book with Online Edition

Product code: PATB72 ISBN: 9781789080483

But if you do want to get this early, contact us as we get a significant discount if we order through school (we can get it for £18 and Amazon are currently charging £28).

Websites

1. You should go to https://isaacphysics.org/ and create an account, the sooner the better. There are so many acitivies here and when you have finished the 15 AQA activities below this is a possible next step. The more comfortable you are using the website now, the easier it will be to find quick and useful help when you are studying in September.
2. https://alevelphysics.co.uk/aqa/ Is also a useful site for notes/reference and has an AQA section (which the link directs to) so you know what you are looking at is relevant to your specification.

Reading around the subject

You don't take challenging courses like A level sciences unless you have developed some interest (either in school or due to never ending process of scientific discovery, advancement and revision that is occurring in many fields every single day. I am writing this in the middle of a global pandemic whilt a tech biollionaire has successfully launched a manned rocket heading for the ISS and another series of sattelites into orbit.

There is so much out there to read, but the following are good for reading now, they don't require a degree in Physics or a google search every two sentences to try and figure out what is being said!

1. Surely You're Joking, Mr. Feynman! – Richard Feynman - ISBN-10: 0606412727
2. A Short History of Nearly Everything – Bill Bryson - ISBN-10: 9781784161859

Videos

1. Dr Quantum – the double slit experiment – https://www.youtube.com/watch?v=Q1YqgPAtzho

This is covered early on in your first unit and is a good insight into just how weird quantum physics is.

2. Just good Feynman lectures, they may be old but he makes sense and is a great presenter.
3. Wonders of the universe – BBC https://www.bbc.co.uk/programmes/b00zdhtg
   This is no loner on iplayer but if you looked to youtube I'm sure it would oblige.

Seneca

If you filter the Seneca learning website type of course to ‘summer accelerator’. They have produced a course which is specifically designed to refresh the important parts of GCSE and give you a taste of how it will link the A level.

Finally – The specification is linked in the AQA document attached. But for ease of access you can find it and a number of other resources on the AQA A level Physics page - https://www.aqa.org.uk/subjects/science/as-and-a-level/physics-7407-7408