



## So You're Thinking of Taking A-Level Physics at Denmark Road?



Congratulations on choosing to do the most interesting subject of them all... Physics!

Physics helps to explain why things happen or how things work in the world and Universe around us – all you need is curiosity, an inquiring mind, and the willingness to ask questions and strive for the answers! Over the next two years we hope to inspire you and build on your interest in Physics.

To give you some brief info on A-Level Physics at Denmark Road – we study the OCR A syllabus (*specification here: <https://www.ocr.org.uk/Images/171726-specification-accredited-a-level-gce-physics-a-h556.pdf>*). You will have eight lessons a fortnight, typically four lessons with each of two teachers, plus extra non-contact lessons for consolidation. You'll also complete a wide range of practical activities, some of which will count towards your practical endorsement.

In the meantime, we want to help you get prepared for the start of the course. The work we've set you to do for the next few weeks will hopefully help you feel ready, and give you confidence that you already have a good base of knowledge from GCSE that will help you be successful at A-Level.

There are two main things we're giving you to work through:

1. Two *Prior Knowledge* exercises which you need to complete using your knowledge and notes from GCSE – these cover parts of the first two topics you would cover in Y12, so you can be confident you can already do A-Level Physics before you even start the course! It will also show you that all your hard work in the last couple of years is still massively relevant and will definitely pay off in the long term, even though you didn't get to show it off in your GCSE this summer.
2. Some exercises relating to:
  - a. Prefixes, powers of 10, standard form.
  - b. The units you'll come across at A-Level, how to write them properly.

All of the exercises in these sets are relatively short so should hopefully not take too much time.

You are welcome to email me at any point to ask any questions, either about the work, or anything else.

Finally, below is a range of YouTube channels to visit and/or books you could read for some wider Physics learning!

YouTube channels:

- Minute Physics: <https://www.youtube.com/user/minutephysics/videos>
- Veritasium: <https://www.youtube.com/user/1veritasium/videos>
- Up & Atom: <https://www.youtube.com/channel/UCSlvk78tK2TiviLQn4fSHaw/videos>
- SciShow: <https://www.youtube.com/user/scishow/videos>

Books:

- How to Teach Quantum Physics to Your Dog *and* How to Teach Relativity to Your Dog (Chad Orzel)
- A Brief History of Time (Stephen Hawking)      For the Love of Physics (Walter Lewin)
- Forces of Nature (Brian Cox)      Why Does  $E = mc^2$ ? (Brian Cox and Jeff Forshaw)
- The Ascent of Gravity (Marcus Chown)      The Reality Frame (Brian Clegg)
- Storm in a Teacup (Helen Czerski)      A Short History of Nearly Everything (Bill Bryson)

In the meantime, I hope you all stay well and look after yourselves!

I look forward to seeing you in September – any questions, please get in touch!

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