

## Physics Induction Work

Dear student,

First of all, thank you for choosing to study Physics at Idsall. We are delighted that so many of you have opted to take this course next year and look forward to welcoming you in September. We know that this is not a normal situation – who could have predicted any of this a few months ago when you were deciding on your A-levels – but I hope you are as excited as we are to be starting afresh in the Autumn.

To help you to make a flying start to the year, we have some tasks and a little project to get you going. Hopefully, it will help you get an understanding of our course – but, beyond that, I hope you enjoy doing it as well. Physics, after all, should *be enjoyed* as well as studied – and, as I'm sure you realise by now, we love our subject!

### **What do I need to do?**

#### 1. Textbooks:

We are following the AQA syllabus. We have textbooks available to use in school but it would be a good idea to have a revision guide and/or a full textbook for reference at home. We will be able to purchase Oxford University Press books at a reduced price once we know final numbers in September. If you want to get ahead in the meantime revision guides are available from any online book store.

#### 2. Research

One of the most interesting parts of A-level Physics is finding out about what makes up our world, from the very big to the very small. The particle Adventure <https://particleadventure.org/> is a really good place to start finding out more about the fundamental building blocks of the Universe. At the other end of the scale, space exploration has been in the news recently with the launch of the Space-X rocket. You can find out more about this and other missions at <https://science.nasa.gov/>

#### 3. Problem Solving

Doing Physics is, above all, about problem solving. This is a skill to be learned and practiced. One good place for doing this online is Isaac Physics. This gives you questions in the form of game boards with hints to help you if you get stuck. We have set you one to start you off. You will need to join the class at <https://isaacphysics.org/account?authToken=YHKZEV>

There are other great websites where you can take a look at to stop your brain going too rusty over the holidays. The Physics Classroom <https://www.physicsclassroom.com/> has tutorials and interactives as well as the Calculator Pad to help you through calculations.

Finally, do have a great summer! This is a great time to broaden your knowledge of Physics beyond the curriculum. I can thoroughly recommend watching Forces of Nature, Science and Islam, Shock and Awe or Inside Einstein's Mind on iPlayer; listening to the Infinite Monkey Cage, The Life Scientific and the Curious Case of Rutherford and Fry on BBC Sounds; or even going old school and reading a book – we have attached a transition pack for you to read through containing further recommendations for you to look through, plus some pre-knowledge questions we would like you to complete and bring with you in September.

If you would like any more guidance or more work(!), please do email us, we are happy to help.

Yours faithfully,

The Physics Team

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