| Subject | A Level Physics |
|------------|---------------------|
| Year Group | Prospective Year 12 |
| | |

Staff Contact Details

It would be useful, though not essential, for you to email to let us know you are interested in studying for this qualification.

To let us know of your interest, or if you have any questions about the work, please contact Dr Cox: <u>vcox@delisle.leics.sch.uk</u>, Mr Akhurst: <u>dakhurst@delisle.leics.sch.uk</u>

Summary of qualification

Pearson Edexcel Level 3 Advanced GCE in Physics (Salters-Horner approach SHAP) (9PH0)

You may have a clear idea about your reasons for choosing A level physics. You may want to forge a career as a cosmologist or a space engineer, a surgeon or a clinical scientist. From architecture and civil engineering to computer game designers and environmental science there are many careers open to you with this qualification. The skills gained through studying physics are highly valued in a range of non-scientific careers such as law, financial services, sports science and the media. If your future aims are unclear at this stage it is worth remembering that for most science and engineering courses physics is a requirement, but also the Russell group of universities includes physics in its list of A levels shown to give an advantage in careers outside the sciences.

The Pearson Edexcel Level 3 Advanced GCE in Physics consists of three externally examined papers and the Science Practical Endorsement.

This approach begins with the consideration of situations and applications that each draws on one or more areas of physics, and then moves on to the underlying physics laws, theories and models. This approach is based on the Salters Horners Advanced Physics (SHAP) Project.

All assessment in A level physics is by examination. There are three exams, two of which last 1 hour and 45 minutes and are both worth 30% of the final marks. The remaining 40 % of the marks are assessed through the third examination lasting 2 hours and 30 minutes. There is an accompanying practical endorsement for the course examined on a pass or fail basis by the completion of core practicals.

Specification link:

<u>Specification - A level (pearson.com)</u> A copy of the specification is also included in this folder.

The institute of physics:

Institute of Physics - For physics • For physicists • For all : Institute of Physics (iop.org)

What would be useful to do now:

Start to prepare for your Unit 1 studies

Higher, faster, stronger: An exploration of the physics behind a variety of sport.

- graphs and equations of motion in sprinting and jogging
- work and power in weightlifting
- forces and equilibrium in rock climbing
- moments and equilibrium in gymnastics
- forces and projectiles in tennis and ski-jumping
- force and energy in bungee jumping.

Physics content on Seneca

https://app.senecalearning.com/dashboard/join-class/aruxyqdq9m

Use Seneca to read through material that is covered in the first part of the specification (starts at p26 for the SHAP approach and the first topic is 'higher, faster, stronger'). Answer the questions within Seneca to check your knowledge and understanding.

The headstart to A level Physics GCP guide

<u>Head Start to A-Level Physics (with Online Edition): bridging the gap between GCSE and A-Level (CGP Head</u> <u>Start to A-Level) : CGP Books, CGP Books: Amazon.co.uk: Books</u>

The online Kindle edition is currently FREE to download

Work through this book, making flash cards of key terms and learning facts and attempting the questions.

Maths for physics. The maths skills required for physics are similar to topics you will have studied at GCSE. To give you a head start you could use the following resource to practice your skills:

GCE Getting Started (pearson.com)

Transition guide

Work through the transition guide document, attempting the baseline assessment. Then work through the different sections reading & making notes on the subject knowledge and then answer the practice questions.

I will place the mark scheme into the folder in a few weeks' time 🕲