PHYSICS
Summer Work 2018

Task 1

Familiarise yourself with the specification for the Physics B syllabus (from 2015) on the OCR website. As it is a large document you may not want to print out a hardcopy but retain it as a document on your own PC/tablet for your own reference. Take some time to read through the content so you know what you will be studying and are happy about embarking on this course.

Summer reading – Author Richard Feynman (I have chosen the following books as the author was not only a brilliant physicist but a clear and entertaining science communicator At least one of these books can be found as a short paperback in most good book shops or library. The longest book being only 250 pages, they are very easy to take away on your holidays for a summer read).

What do you care what other people think - auto biographical but with an excellent section on the Challenger shuttle disaster investigation.

The character of physical law - a very clear, short overview of physics with the author focusing on fundamental principles and relationships.

QED - the strange theory of light and matter - explains Feynman's approach to quantum theory which is used in the quantum theory chapter in the first year of this course.

Six easy pieces - six very clear chapters on fundamental physics taken from the Author's famous series of lectures on physics.

Six not so easy pieces – As the name suggests these are six more challenging chapters on topics such as relativity and symmetry in physics.

Task 2

Produce a review (1 to 2 sides of A4) of at **least one** of the above books. This will help us assess your motivation, understanding and communication skills.
(I will expect a student starting AS to have read at least one of the above and a student keen on their physics to have read more, due to their own curiosity and for their own enjoyment.)

Task 3

Be prepared to have **a test** in the first month of starting in September on material taken from Additional Science content (P2). This will help us judge whether you have actually internalised the GCSE work. At A level we will assume that you have an in depth understanding of this prior work.

Optional Extra

Visit the website *https://isaacphysics.org/* developed by the University of Cambridge, which aims to support students of physics through problem solving. You can register for free and independently sharpen up your physical understanding by trying a range of questions.

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