Subject	A Level Physics
Context	This pack contains a program of activities and resources to prepare you to start A level in Physics in September. It is aimed to be used after you complete your GCSE studies throughout the remainder of the summer term and over the summer holidays to ensure you are ready to start your course in September. When you start your A level Physics course there are a few topics that you will recognise from your GCSE studies but there are also some topics from the more exotic areas of physics. You will probably be aware of some of the terms and names of that we will be studying but probably not all of them. Work your way through the activities below, once you have completed them, please remember to bring it with you for your first physics lesson in September.
Securing	1. Go to OpenLearn (Open University distance learning platform) and sign up for the following course: https://www.open.edu/openlearn/science-maths-technology/what-are-waves/content-section-0?active-tab=description-tab Complete the course and submit the free certificate as evidence of completion. 2. To get a head start on the first topic we will cover in year 12 there is another free course on Particle Physics: https://www.open.edu/openlearn/science-maths-technology/particle-physics/content-section-0?active-tab=description-tab Complete it and submit the free certificate as you have for the waves one.
Processing	Complete the online Socrative quiz (link below, you don't need to register or make an account). Remember to enter your name before you start. These are some higher-level GCSE questions that fit nicely between GCSE and A level standard which should help keep you ticking over before we start back in September. https://api.socrative.com/rc/c5Bpbx

Exploring	**Do ONE of the following options:** 1. Choose a book, film or even a podcast of your choosing (some suggestions below if you cannot think of any) and write a short summary - word limit **500 words ± 10%.** • You do not need to read the whole book • The book can be fiction or non fiction but must relate in some way to physics • The film or podcast can be a documentary or a fictional sci fi film but must relate to physics. • Write why you like or chose it (roughly 100-150 words) • Comment on some of the physics (350-400 words) Possible books: • A short history of nearly everything – Bill Bryson • Particle Zoo – Gavin Hesketh • Storm in a tea cup – Helen Czerski • Surely you're joking Mr Feynman • Ringworld – Larry Niven • Quantum theory cannot hurt you – Marcus Chown Possible films: • Apollo 13, The imitation Game, Interstellar, The Martian, The Current War, The theory of everything, Particle Fever, A brief history of time. Possible podcasts • 13 minutes to the moon, look on BBC sounds or similar for others. **OR** 2. Research a Physicist – word limit **500 words ± 10%.** (see requirement below) • Choose at least one Physicist (**ideally one you have not heard of)** that is in a field of physics you are interested in. • who are/were they and what did they discover or are working on. • How their science applies to everyday modern life today • Why did you choose this Physicist? • Include your references (ideally Harvard referencing style – there are plenty of free tools online to help you do this)
Reviewing	Download the 'Year 11-12 Induction Workbook' booklet for A-level Physics from the school website. Read it carefully, paying particular note to the worked examples, and the 'quizlet' that it asks you to create. Then either: Print out the question sheets, including the front cover, and hand write your answers ready for submission in your first lesson in September (this is the preferred option). OR:

	Use an electronic device to write your answers directly onto the PDF, ready for online submission when you return to school in September. Print out and bring the equation sheet (below) for the course with you to your first lesson. AQA A Level Physics Data Booklet