

## A Level Physics - Bridging Material 2023

In the first term of your A Level Physics you will study **Kinematics** and the **Nature of Waves**. **Reviewing your GCSE work on Forces** **Motion -** **and Waves** will be essential in order for you to hit the ground running in September.

You will be tested on your GCSE knowledge of these topics in week three. This will determine whether you will need to attend our additional top-up sessions during this first half of term.

### **Practice Questions**

We recommend that you work through the following questions packs:

Practice GCSE Forces & Motion

<https://dauntseys.fireflycloud.net/resource.aspx?id=604166>

Practice GCSE Waves

<https://dauntseys.fireflycloud.net/resource.aspx?id=604167>

**Videos:** We recommend that you watch the following videos:

**Basic Physics:** (<https://www.alevelphysicsonline.com/quantities-and-units>)

- Quantities vs. Units
- Base Units
- Derived Units
- Unit Prefixes
- Estimating Physical Quantities
- The Greek Alphabet

**Waves:** <https://www.alevelphysicsonline.com/waves>

- An Introduction to Waves (and the Jelly baby Wave Machine)
- Wavelength, Period, Amplitude and Phase Difference
- The Wave Equation
- Reflection, Refraction, Diffraction and Polarisation
- Amplitude and Intensity
- The Transverse Nature of EM Waves
- Wavelengths and Frequencies of EM Waves
- EM wave speed and refractive index
- Polarisation of Waves

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We base our A Level course on the **Eduqas** A Level Physics specification:

<https://www.eduqas.co.uk/media/jh5iwuvk/eduqas-a-level-physics-spec-from-2015-e.pdf>

We suggest purchasing the following book if you wish to do some preparation work / background reading prior to starting the course. However, please note that we do issue this book to all students in September:-

**CGP Head Start to A-Level Physics**

Bridging the gap between GCSE and A-Level

ISBN 978 1 78294 281 8

[www.cgpbooks.co.uk](http://www.cgpbooks.co.uk)

You will be issued with a course textbook, however, if you would like to purchase a personal copy to look at before starting the course, here are the details:

**Eduqas Physics for A Level Year 1 & AS: Student Book**

Publisher: Illuminate Publishing

ISBN-13: 978-1908682703

[https://www.amazon.co.uk/Eduqas-Physics-Level-Year-AS/dp/1908682701/ref=sr\\_1\\_3?ie=UTF8&qid=1529741508&sr=8-3&keywords=eduqas+physics](https://www.amazon.co.uk/Eduqas-Physics-Level-Year-AS/dp/1908682701/ref=sr_1_3?ie=UTF8&qid=1529741508&sr=8-3&keywords=eduqas+physics)