

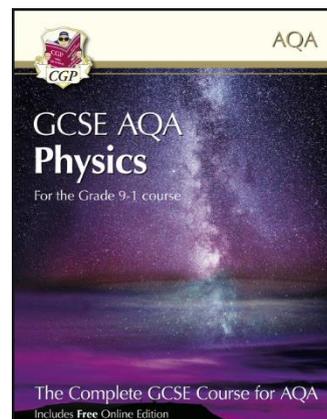
Joining A-Level Physics in September at Stowe?

Dear Students,

Over the Summer Term we have been consolidating the GCSE content with our 5th form students. The core content of GCSE Physics is vital as it builds the bases of knowledge that we move on from in A-level Physics. The current 5th form have been studying the AQA GCSE Physics specification, but the content is similar to all boards.

As such it would be good for you to revise GCSE content over the summer in preparation for A-level Physics. In the first year we focus on topics from Mechanics, Electricity and Waves, so these topics are a good place to start revision work.

I would also encourage some wider reading in Physics as appreciation of the scope of physics and finding topics that fascinate all lead to success in your studies and future opportunities. <https://wiki.ezvid.com/best-physics-books> There are plenty of websites for suggestions of books to read, this is a very good list however of some common books.



Best Wishes

Mr Thompson (Head of Physics and Robotics)

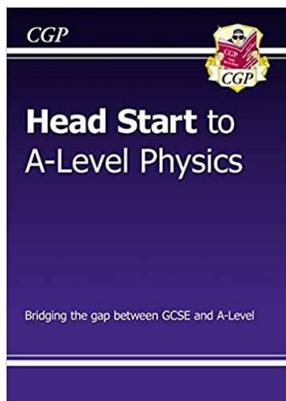
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Topics we will cover in A-level.

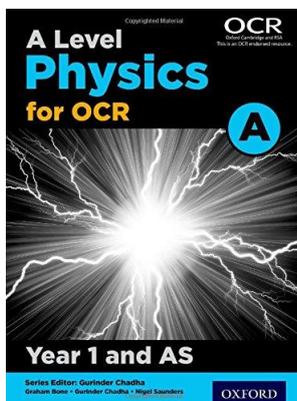
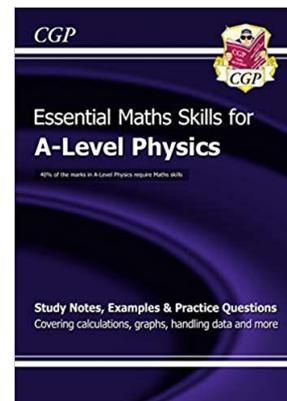
- **Mechanics:** Includes projectiles, materials, motion, momentum, moments and energy, uniform circular motion, simple harmonic motion.
- **Electricity:** Circuits, components, internal resistance, AC & DC, capacitors.
- **Waves:** Properties, refraction, super positioning, interference and diffraction.
- **Quantum Physics:** Photoelectric effect and wave particle duality.
- **Fields:** Electric fields, magnetic fields and gravity.
- **Astronomy.**
- **Medical Physics.**

Consider, if you haven't already done so, signing up (for free) to Seneca Learning. This online revision tool can help you improve in specific areas. You will need to search for Physics: AQA GCSE Higher. <https://app.senecalearning.com/courses>

Also sites like <https://www.physicsandmathstutor.com/physics-revision/> Offer loads of question packs to test your GCSE knowledge.



If you wish to get a further head start into A-level, Books like these CGP text are available, for around £5 each. They offer questions and brief notes around core concepts from GCSE with a focus on the skills and content needed for A-level study.



A-Level Exam Board and Specification: We Study the OCR Spec A Physics course.

The textbook we follow is the Oxford University Press A Level Physics Book. It can be purchased in separate year split (AS and A2). We issue this on arrival at Stowe, but you are welcome to obtain a copy beforehand.

Other opportunities at Stowe. We run several Physics based activities at Stowe and welcome student input to expand this.

Robotics.

Currently we have a very successful robotics team that competes in an international competition called the “VEX robotics competition”. This has really developed in recent years with the release of some of the most advanced equipment available in school programs.

Astronomy.

We have several telescopes at Stowe, the main telescope being a 12” refracting telescope with full GPS tracking systems. We will be launching astronomy club with the interest of students. We will also be repeating our attempt at high altitude balloon launches, which we have done this several times in the past with students planning the payload, experiments and launch plans.



Any opportunities you take to look deeper into Physics, be it wider reading, podcasts, youtube videos or revision of GCSE content will set you up well with the interest and drive needed to succeed in physics at Stowe.