

# PHYSICS A LEVEL: Welcome and What to Expect

Welcome to A-Level Physics. Throughout the next two years, you will study a range of traditional topics (Mechanics, Electricity, Waves), as well as some more modern topics in areas of Quantum and Particle Physics. Many of our students go on to Higher Education courses in Scientific, Engineering and Caring disciplines. Physics is a demanding subject, but with hard work, it is possible to succeed.

## Lessons, Homework and Assessment

The department teaches the AQA A level course (code 7408). Each Physics group is usually taught by 2 teachers. The 4.5 hours a week are divided into 3 elements:

- 1.5 hours of theory with teacher A,
- 1.5 hours of theory with teacher B
- 1.5 hour practical session with teacher A (the major teacher).

Most physics students will take Maths A-level, but those who do not will attend a Maths for Physics workshop once a week. This is to help them develop the problem solving skills needed to succeed.

In addition to timetabled lesson time, there is also the expectation that you will spend at least an additional 4.5 hours consolidating your learning, which will include, but is not limited to set homework. As Physics is a demanding subject, we would expect you to carefully plan their independent study time to keep up with the course. Set homework will cover both theory and practical work. The following are the main types of work we will set:

- **Theory homework** will be set on a regular basis by both teachers and will be recorded on a homework posting forum on Godalming Online. A typical theory exercise will often consist of (mostly mathematical) problems set around the current topic. You may need to do further background reading or research to complete the work, and you should persevere to produce as complete solutions as possible, to ensure that valid learning takes place.
- **Practical reports** should be completed after every practical session and returned within a week before the next practical session. Practical work is viewed as a very important aspect of the course, both to develop practical skills and to reinforce the learning of theory concepts. In addition, practical work needs to be marked to assess the separate practical endorsement award.
- **Benchmark tests** are set every half term and you will always be given plenty of notice before each test and an indication of the topic areas to be covered. The expectation is that you will spend a significant time on revision and preparation. With Linear A levels, benchmarks are the main evidence we have for predicting performance in the final exams and so need to be taken very seriously.

### ***Actual Exams at the end of the 2-year course***

At the end of the 2 years of study, you will take three two-hour exams. In addition, you will also be assessed for the practical endorsement. This is a separate pass/fail grade and does not contribute to the overall A-level grade, however questions about practical techniques do feature in the theory exams.

## What resources are available to students?

Teachers are there for guidance with your studies but we would also expect you to have accessed support materials and tried to work out any misunderstandings. A key difference from GCSE is that students take a lot more responsibility for their learning. The following can help you with that:

1. **Textbooks:** Consolidation of content is important. The Hodder books are the main texts used and these are available to read online as a free eBook service – there is a link to this through Godalming Online. You are encouraged to borrow or buy a textbook, and the ILC/Library has copies of all main Physics textbooks.
2. **Godalming online:** We have uploaded a lot of notes and questions that can be found under the appropriate topics.
3. **Workshops:** Throughout the week, we have workshops support during lunchtimes in room 131. The department also operates an 'open-door' policy for questions

## What should I do now?

- **Complete the 'Physics induction assignment'** for your first physics lesson (This could be on Friday 9<sup>th</sup> September, so please check your timetable). We expect you to use any resource available to you for help; therefore, it should be completed properly. This is important for us to get to know you.
- **Log into Godalming Online and explore the Physics site.** You may not receive your college login in details until later, so please to this as and when you can.