



A LEVEL PHYSICS SUMMER TASKS 2025

All tasks are due for the first full week back to school – the first lesson during the week commencing **08/09/2025**. Please make sure to bring your Task 1 essay and your Task 3 review to your first physics lesson.

Task 1:

Research 'The International System of Units', and compile your findings in an essay. The essay should be between 800 – 1000 words.

The International System of Units the modern form of the metric system. It defines the most widely uses units in science, and is devised around seven base units and some prefixes.

You will need to include:

- Definition of a base unit, and noting the seven base units for physics.
- Which countries have / have not adopted this system.
- How each unit has historically been defined.
- A table reference of the prefixes.
- The total number of words written at the bottom of your essay.

Please make sure to not copy and paste the information from a webpage; the work must be written in your own words. Failure to do so will require students to resubmit their essay.

Task 2:

Make an account on the website "Isaac Physics": (<https://isaacphysics.org/>).

Join the class "**A level Physics – Summer Work 2025**" by:

- Going to "My Account" Page
- Select "Teacher Connections"
- Input the code: **QNN3NB**

Complete the short assignments to help prepare you for the start of year 12; there will be a baseline test taking place within the first few weeks.

Assignments are automatically marked for you and will be visible to your teachers. Please note that Isaac Physics' automatic marking is very specific – make sure that you check that the number of significant figures of your answer matches the number of significant figures of the data in the question itself. Then check that you have completed any unit conversions.

Task 3:**Choose one of the following:**

- Write a review (approximately 400 words) of a book, lecture or article about a part of physics that you are interested in. Explain why you find this part of physics particularly interesting, and what ideas included in your literature which you would like to know more about. You can include some of your own research or knowledge around the topic if you like.

OR

- Write a review (approximately 400 words) about something physics-related that you did over the summer. Discuss what you did and why you found it interesting. This could include:
 - Attending a lecture
 - Attending a science club or competition
 - Visiting the science museum

Top tips for A-level Physics:

1. Around 30% of A-level Physics papers is A-level standard mathematics. As such, taking A-level maths will be a sensible decision, especially if you are aiming for an A grade.
2. Try to read around the course if you can, or watch lectures online. You will be expected to explain physics concepts using scientific language in your written work, and these will give you examples on how to do this, and what their thought process was.
3. Get familiar with the definitions for units and quantities – these will help you a lot with linking formula and will form the basis of many derived concepts. A list of key definitions will be provided to you, but making up some flashcards yourself will help you to learn them.
4. Find someone to work with! Physics can be a challenging subject, and having another person to work through questions with and to share ideas can help you to process a difficult concept or to see things from a different angle.
5. Don't neglect your practical work. Practical skills will be formally assessed during the A-level course. One of the first modules we do will focus on practical skills, and you can find many videos online to review each practical we do. Universities will expect a PASS for your practical work as part of your UCAS offer.