

PHYSICS:

About: The dictionary definition of Physics is ‘the study of matter, energy and the interaction between them’, BUT, what that really means is that Physics is about asking fundamental questions and trying to answer them by observing and experimenting. · Physicists ask really big questions like – How does the sun keep on shining? Or What are the basic building blocks of nature? If you think these questions are fascinating, then you’ll like Physics!

B. Main topics covered· Light, Sound, Waves, Electricity, Mechanics (measuring velocity, acceleration etc.) Modern Physics (which includes particle physics, radioactivity, x rays, electronics). · The skills needed to study Physics are – Drawing graphs – Rearranging formulae - Describing experiments.

C. What type of student would do well at this course? · Students who achieve an A or B in honours JC Science and/or Maths would not have a problem with LC Physics (assuming the work ethic is still intact in 5th Year!). This does not mean students who have not achieved these grades are excluded from studying Physics – it is meant as a guide. · A student who likes logic. · A student who likes experiments.

D. What careers is Physics a useful subject for? · Engineering, Radiography, Physiotherapy, Medicine, Aviation, Geology, Meteorology, the Navy, Oceanography, Electrical and Electronic areas, Astronomy, Architecture, Computers and all Science courses have a Physics module / core etc.

E. Similarities/Differences between Junior and Senior Cycle? · The material covered for the Physics part of JC Science is expanded on and some new material is included.

F. How is the subject examined in Leaving Certificate? · 3 hour written paper. Section A – 4 questions on experiments. Students must complete 3 of these questions. · Section B – 8 questions covering theory and experiments. Students must complete 5 questions. · A laboratory notebook must be kept by students in which they record the experiments completed in class.

G. What other school subject/s is it linked to at Leaving Certificate? · Maths, Chemistry, Geography, History and Applied Maths.

H. What type of skills will it help develop? · Problem solving skills · Understanding concepts.

I. What do students like about it? · Students also enjoy the smaller classes associated with Physics. · Students who like hands-on practical work and experiments like this subject.

J. What may students find hard about it? · Many apparently complicated things in nature can be understood in terms of relatively simple mathematical relationships. The mathematical equations used in Physics often look far more complicated than they really are. Nevertheless, if you are going to study Physics, you will need to get to grips with a certain amount of Maths. Until students grow in confidence, some students find manipulating formulae to find an answer to a question challenging.