

A Level Physics is the study of the world around us. You will learn about the structure of the universe, from the very small particles that form protons, to the fusion reactions that power stars and the fate of the universe. This includes the way we use our knowledge of matter and anti-matter to diagnose medical conditions in MRI and PET scanners. It will also ensure that you have a thorough grounding in scientific techniques and the ability to analyse data and evaluate experiments.

Student Profile

A successful student will need:

A* to B in GCSE Physics or Additional Science

9 to 6 in GCSE Mathematics

A scientifically inquisitive mind, some one who asks questions about the world around them

Determined, self-motivated and prepared to work hard.

Work well independently and as part of a small group.

'Potential into Performance'

Building Your Future Together

Course Content

AS:

Forces and Motion. The study of how and why things move and the forces involved, from everyday objects to modelling in computer games.

Electrons, waves and photons. Electrical circuits, the nature of waves and the properties of the electromagnetic spectrum and quantum physics.

A2:

The Newtonian world and astrophysics. The physics of the universe, thermal physics and more complex motion.

Particles and medical physics. Quarks, antimatter, X-rays and MRI.

Skills Gained

The ability to follow methods, plan and conduct practical work and draw conclusions

To analyse data, looking for patterns that explain the world around us

To explain complex phenomena in a way that can demonstrate understanding.

Problem solving skills, practical and mathematical

The ability to evaluate

The Future - What Next?

Physics A Level will prepare students for a career or further study in physics, engineering or other science related areas. Students who attain A Level physics are highly sought after by universities and employers and end up in a wide range of highly paid careers from finance to architecture.

Staff Contact

Phil Bunney (*BEng MSc PGCE*)

Head of Physics

bunneyp@lydiardparkacademy.org.uk

