PRIORY
EDUCATION AND CHILDREN'S SERVICES

A Level Physics Curriculum Intent

Thinking about the future can be very hard for young people, but choosing an A-level in Physics will open the door to many opportunities. On this course students will develop skills that can be transferred to just about any area of work, from setting up a business to saving the planet. For students not going on to become a physicist, learning to think like one will help them develop the skills to get to the root of any problem and draw connections that aren't obvious to others. Physics won't give all the answers, but it will teach students how to ask the right questions.

A-level Physics is a mixture of highly conceptual thinking and very practical applications. Students have the opportunity to be able to think about abstract ideas such as fields, but then have to apply those ideas to how, for instance, electric motors work. There is also a full programme of practical work to complement the theory classes and to develop lab skills. Getting accurate results from experiments requires practice and competence in the use of a variety of equipment. At the same experimental work also requires students to be precise in recording their observations and disciplined in the layout and analysis of the data. Students will also develop their written communication skills as they draw conclusions from the evidence and explain their ideas.

Physics is a highly respected subject and a good grade at A-level is valuable whether the young person continues on to Higher Education, or seeks employment after their course. A-level physics will help students to build up mathematical, problem solving, research, and analytical skills. With these skills they will be able to test out new ideas plus question and investigate other people's theories, which is useful for any kind of job that involves research or debate.

Although only a lucky few can become astronauts, Physics really can provide a career in space. Cosmologists and astrophysicists work to understand the evolution of the universe or search for black holes, or for the more practical, there are lots of UK jobs in space engineering. There are also many fields where it might not be so obvious that Physics is needed: visual effects in films require physicists on the team to model tidal waves, falling objects and explosions; computer games need the physics to be programmed into them; physics is needed to create monitoring equipment and model ecosystems to help protect our environment; and physics is used in sport, for example developing goal line technology.

Studying A-level physics doesn’t restrict options, it expands them. As well as being needed for many careers in science and engineering the skills and knowledge that are developed by studying physics keep the door open to doing just about everything else.