

A Level Physics

Why study Physics at A Level?

Physics is a subject of enormous breadth. It encompasses the whole of the physical world from fundamental particles to supermassive black holes, from the beginning of time to the ultimate fate of the universe.

Physics is a popular choice at Wellsway. The course is challenging and involves a fair amount of mathematics at times, but it is also an exciting journey and you'll find a vast array of career opportunities open to you at the end of it.

What will I study?

Although much of our work continues the exploration of electricity, mechanics and waves which we began in Key Stage 4, we also introduce you to some of the deeper wonders of the universe.

We explore fundamental particles and quantum phenomena and find answers to such questions as: "What happens when matter meets antimatter?"; "What are quarks?"; "How can two light sources combine to make darkness?"; "How do optical fibres work?"; "How can strings produce musical notes?" and "What is a superconductor?"

You will be developing your practical skills throughout the course as you work your way through a number of set practical experiments. You will use new equipment such as lasers, frequency generators and oscilloscopes. You will even be allowed to use the radioactive sources.

Assessment

100% examined.

Paper 1: Written exam of 2 hours in length, consisting of multiple choice, short and long answer questions.

Paper 2: Written exam of 2 hours in length, consisting of multiple choice, short and long answer questions.

Paper 3: Written exam of 2 hours in length, consisting of short and long answer questions on practical experiments, data analysis and an option unit.

Study trips, visits and events

A visit to CERN, a world class centre in Switzerland, to see the Large Hadron Collider and other important science experiments.

A visit to the University of Bristol for a particle physics masterclass.

Subject entry requirements

6-6 in Combined Science or 6 in Physics, plus 6 in Maths.