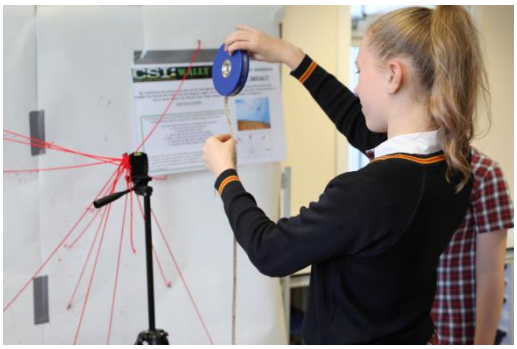
PHYSICS

AN INTRODUCTION TO THE SUBJECT

Why does an electric heater get hot? How do buildings remain standing? What is the origin of the universe and what causes a rainbow? How does a musical instrument work? Why is the night sky dark? These and many more are the kinds of questions asked by those who study Physics. Many are very BIG questions, but there are many amazingly simple and beautiful patterns that become clear at all levels of study, from Year 7 through to Year 13.

At Walthamstow Hall Physics is both a practical subject and a theoretical one. It involves using experimental apparatus regularly and applying mathematical or logical ideas to understand the results. Above all it is an exciting and enjoyable subject, preparing for a huge range of professional careers including conventional career paths such as engineering and medicine, but also more unusual jobs, such as Cyberneticist, Radiographer or Meteorologist. The department is well-resourced, particularly in the area of data-logging, in which students become familiar with probe sensing and with the use of computers in practical investigations. We are also fortunate to have a recently refurbished photographic darkroom at our disposal.

KEY STAGE 3 STUDIES



'Wally CSI' Science Week 2019: analysing blood splatter

From Year 7 to Year 9 students are taught each of the three sciences by specialist teachers. They have one double period (70 minutes) per week for each science. This means that from the start students are learning Physics from those who know their subject well and are keen to share their fascination. We take pride in using experiments almost every lesson to reinforce student learning.

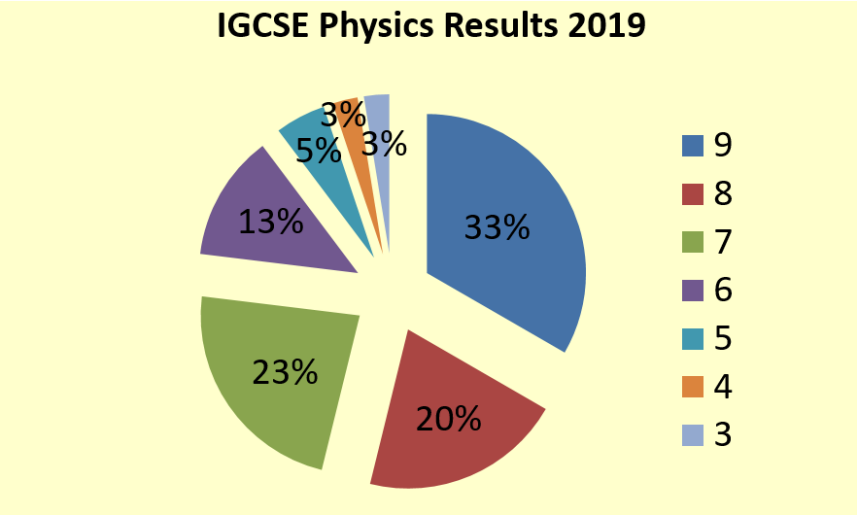
IGCSE

Students follow the Edexcel International GCSE course (4PH1). During Years 10 and 11 students choose to study either for three Separate Science International GCSEs (2 double periods per science per week), or for two Combined Science International GCSEs (one double period and one single period per science per week). Every student is helped to achieve their full potential, and the University of Durham's Centre for Evaluation and Monitoring MidYIS analyses, which provide value-added reports by subject and cohort, indicate a significant 'value added' each year.

CO-CURRICULAR LEARNING

Science Club runs for students who are new to the School and interested in everything from creating slime, dissecting owl pellets and amateur rocketry. When they are older, they can take their interest further with Wally Engineers where they can use more advanced understanding to start building robots, aircraft, catapults and more. Trips include a Year 7 trip to the Hertsmonceux Observatory every year, Year 9 attended a Physics in Action day and higher up the School, students visit the Diamond Synchrotron in Oxfordshire.

Investigating fingerprinting in Science Week 2019



A separate subject sheet is available for Physics at A Level.