



THE
WORTHGATE SCHOOL
CANTERBURY

COURSE DESCRIPTOR

INTERNATIONAL BACCALAUREATE

HIGHER LEVEL AND STANDARD LEVEL PHYSICS

SUBJECT OVERVIEW

Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself from the very smallest particles to the vast distances between galaxies. IB Physics course is well respected by the top universities around the world. This course is covering the traditional areas of Physics such as: Mechanics, Waves, Electricity and Magnetism and Nuclear and Quantum Physics. We will also develop your Practical Skills including designing your own experiments. Theory of Knowledge applied to Physics topics gives opportunities for philosophical discussion.

PRIOR LEARNING REQUIRED

There is no formal requirement for prior knowledge of physics to study IB DP HL or SL Physics. Your interest and curiosity in the fascinating realm of physics are essential for a successful journey through this subject. GCSE or equivalent knowledge of Physics or combined science is recommended. A good understanding of GCSE or equivalent mathematics is also beneficial to your learning.

Language: IELTS 5.5 or equivalent

EXAM BOARD

International Baccalaurate

COURSE CONTENT

Year 1	Year 2
A. Space, time and motion	D. Fields
B. The particulate nature of matter	E. Nuclear and quantum physics

C. Wave behaviour	
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ASSESSMENT

We have half-termly and termly assessments. We also have final assessment at the end of academic year, Grades are determined by final IB external examinations, which take place in May/June at the end of the 2-year course, and the IB internal assessment which consists of one task: the scientific investigation.

Paper	Length of paper	Weighting
Paper 1 Paper 1A—Multiple-choice questions Paper 1B—Data-based questions	Total 45 marks 1 hour and 30 minutes	36% of final grade
Paper 2 Short-answer and extended-response questions on standard level material only.	Total 55 marks 1 hour and 30 minutes	44% of final grade
Internal assessment	10 hours	20% of final grade

TEXTBOOKS/REVISION GUIDES

Title	ISBN	Author
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Course Book: Physics Course Companion (Oxford Resources for IB DP Physics)	978-1382016599	David Homer, William Heathcote, Maciej Pietka
Study Guide (Oxford Resources for IB DP Physics)	978-1382016698	Tim Kirk

HIGHER EDUCATION PATHWAYS

Physics opens a large range of career options as, together with other sciences, it is important for technology, research, engineering, the medical profession, as well as many other occupations.

Previous students have studied:

University of Sheffield – Theoretical Physics

University of Warwick – Computer Systems Engineering

University of Manchester – Mechanical Engineering

COMPLEMENTARY SUBJECTS OF STUDY

Maths, Chemistry, Biology, Computer Science

CURRICULUM DIRECTOR

Ms. Sue Chubb