CFGS | 6

ASPIRE BELIEVE ACHIEVE

Physics

A Level – OCR

central.towerhamlets.sch.uk

Physics Course Overview

Who is the course for?

This course will suit you if you are enthusiastic and interested in Physics or have an interest in further study and careers in Physics or related areas. In this course you will be able to develop essential knowledge and understanding of different areas of Physics and how they relate to each other, the economy and society.

How will I be assessed?

Exams will be sat at the end of year 2 and will cover theory and practical skills of physics taught across modules 1 to 6 and are a combination of multiple choice, structured and extended response questions.
Paper 1: Modelling Physics – assessing content from Modules 1, 2, 3 and 5
Paper 2: Exploring Physics - assessing the content from Module 1, 2, 4 and 6
Paper 3: Unified Physics - assessing content from Modules 1 to 6

What could I do after the course?

This course provides natural progression onto Physics based university courses, like mechanical engineering, electrical and electronic engineering. More and more universities now have A Level Physics as a requirement for studying Medicine.

What else do I need to know?

You will take both theoretical and practical lessons, where you will participate in discussions and debates, demonstrate application of number, ICT skills, working with others, analysis and problem solving skills. You will be required to do independent study and research.

What will I be studying?

A Level consists of the following 6 modules which will develop your knowledge, skills and expertise:

1) Development of practical skills - Skills of planning, implementing, analysis and evaluation
2) Foundations of physics - Physical quantities and units, Scalars and vectors & Measurements in Physics
3) Forces and motion - Motion, Forces in action, Work, energy and power, Materials & Newton's laws of motion and momentum
4) Electrons, waves, and photons - Charge and current, Energy, power and resistance, Electrical circuits, Waves and Quantum Physics
5) Newtonian world and astrophysics - Thermal physics, Circular motion, Oscillations, Gravitational fields and Astrophysics
6) Particles and medical physics - Capacitors, Electric fields, Electromagnetism, Nuclear and particle physics & Medical imaging

Contact Name: Dr A Jasper

Entry Criteria

- 5 GCSEs at grade 5 and above
- 6 in both English Language and Maths. 6 in Physics and a 6 in the other two Sciences or 76 in Combined Science.

CFGS6 Top Links to Expand your interest in Physics

- Institute of Physics – Do try this at home
- Veritasium – 5 fun physics phenomena and 5 fun physics phenomena explained
- Shock and Awe, The Story of Electricity
- The Fantastic Mr. Feynman
- The Secret of Quantum Physics: Einstein's Nightmare
- Minute Physics
- Wonders of the Universe / Wonders of the Solar System
- Available on Netflix
- NASA TV

CFGS6 Alumni Destinations with A Level Physics

City, University of London - International Politics
City, University of London - International Politics and Sociology
City, University of London - Law
City, University of London - Mathematics
Goldsmiths - Law with Politics and Human Rights
Goldsmiths - Politics and International Relations
Imperial College London - Medicine
Queen Mary University of London - Biomedical Sciences
Queen Mary University of London - Comparative Literature
Queen Mary University of London - Geography
Queen Mary University of London - Physics
SOAS University of London - Accounting and Finance
SOAS University of London - Politics and International Relations
University of Oxford - Law
University of Westminster - Biomedical Sciences
University of Westminster - Business Management
University of Westminster - Psychology

Alternatives to HE

Connaught College Level 3 BTEC Engineering
Volunteering in a school in Pakistan