

IGCSE Physics

Overview

Physics aims to explain everything around us; from the tiniest particle to the formation of the universe it attempts to explain observations of facts and develop them into theories. Students engaged in this program will work with a mentor to improve their observation, critical thinking and analytical skills in order to gain an appreciation of the intimate workings of the universe. Through identifying their strengths and weaknesses, students will create a personalised curriculum that covers general physics to atomic physics. Finally, students will develop their writing and presentation skills in order to translate their critical thinking and analysis into meaningful reports.

Objectives

- Develop a more comprehensive knowledge of the scientific method
- Enhance understanding of real-world applications of sciences
- Foster analytic skills and a critical thinking mindset
- Acquire sufficient knowledge to become confident citizens in a technological world
- Improve report writing and presentation skills

Structure

- Reflect on current knowledge of the range of topics that Physics covers and identify strengths and weaknesses
 - Develop a personalised curriculum
- Investigate Physics studies and theories in the world today
 - Real-world examples
 - Scientific method (usefulness and limitations)
 - Ethical concerns
 - Limitations of scientific endeavours
- Collaboratively develop data analysis skills
 - Critical thinking and evaluation skills
- Practice reporting primary and secondary data in the form of a report
 - Scientific writing style
- Exam practice
 - Past papers
 - Planning and structuring responses
 - Analysing and evaluating sources

