A Level Physics

Overview

Physics aims to explain the 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 abilities and skills that are relevant to the study and practice of science
- Stimulate interest in, and care for, the environment in relation to the environmental impact of physics and its applications.
- 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

Structure

- Reflect on current knowledge of the range of subjects that Physics teaches and identify strengths and weaknesses
    - Develop a personalised curriculum
- Investigating 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