

Physics:

Unit 1:

This unit focuses on the study of physics as a human endeavour in which observations and ideas about the physical world are organised and explained. Conceptual models are introduced and used to describe and explain observed physical phenomena related to light and radioactivity.

Unit 2:

This unit focuses on the particle model of matter and ideas about energy transfers and transformations are relevant to the study of nuclear and radioactivity physics. The application of models is used to explain phenomena related to movement and electricity.

Unit 3:

This unit focuses on the technologies that underpin communications and industry with studies in motion in one and two dimensions and electronics and photonics. Motion in two dimensions is introduced and applied to moving objects on Earth and in space and applied to analyse the motion of the Moon, the planets and satellites. Circuit models are applied to further aspects of electricity and electronics, and the operation and use of photonics devices introduced.

Unit 4:

This unit focuses on the development of models to explain complex interactions of light and matter. A field model of electromagnetism is applied to the generation, distribution and use of electric power. The detailed studies provide examples of innovative technologies used for research and communication.

