Physics

N5

Physics is the study of matter, energy and the interaction between them. This entails asking fundamental questions and trying to answer them by observing and experimenting. The answers to such questions can lead to advances in our understanding of the world around us and often result in technological improvements which enhance the lives of all.
Physics gives candidates an insight into the underlying nature of our world and its place in the universe. From the sources of the energy we use, to the exploration of space, it covers a range of applications of the relationships that have been discovered through experiment and calculation, including those used in modern technology.
An experimental and investigative approach is used to develop knowledge and understanding of physics concepts. This course enables candidates to develop a deeper understanding of physics concepts and the ability to describe and interpret physical phenomena using mathematical skills. They develop scientific methods of research in which issues in physics are explored and conclusions drawn.

Topics Covered

- [ ] Dynamics
- [ ] Electricity
- [ ] Properties of Matter
- [ ] Radiation
- [ ] Space
- [ ] Waves

Assessment Breakdown

- [ ] Overall Marks - 125
- [ ] *Exam – 100 (**80%** of overall grade)*
- [ ] *Assignment – 25 (**20%** of overall grade)*

Skills Gained

- [ ] *Numeracy*
- [ ] *Information handling and processing*
- [ ] *Applying knowledge to new situations*
- [ ] *Problem solving*
- [ ] *Literacy*
- [ ] *Teamwork - Working with others*
- [ ] *Creativity and innovation*
- [ ] *Global citizenship*

Progression & Possible Career Paths

Progression:

- [ ] Higher Physics
- [ ] Advanced Higher Physics
- [ ] A college or university course

Possible Career Paths:

- [ ] Engineer Civil/Electrical/Aerospace etc
- [ ] Medical Physicist
- [ ] Astronomer
- [ ] Data or Systems Analyst
- [ ] Web Developer
- [ ] Meteorologist

Entry Requirements and advice

It is recommended that pupils have completed National 4 Physics or equivalent. Pupils should have a strong performance in Maths as the course relies heavily on numeracy skills, especially handling formulae, drawing and interpreting graphs, algebra and arithmetic. Scientific thinking and processing skills such as understanding cause and effect in physical systems and applying basic scientific principles to new situations, are useful. Pupils should have strong practical and investigative skills in order to carry out experiments safely and record results accurately. A strong background in literacy is recommended in order to support pupils explaining complex physics concepts clearly using appropriate terminology.