

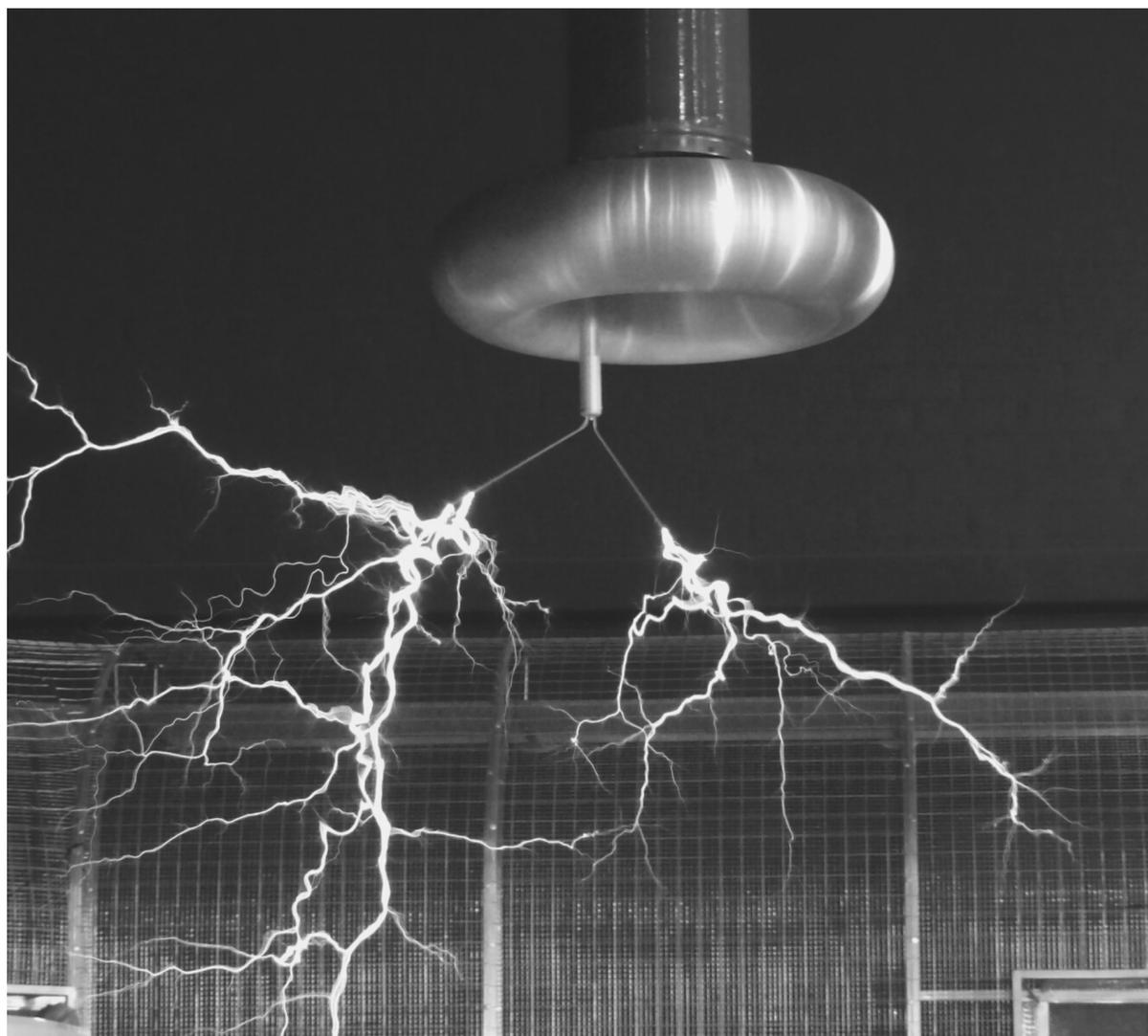
Physics

National 5

Progression through Physics

Higher
Physics

A pass at National 5 level would give the foundations required for studying Physics at Higher level.



Course Content

Dynamics

- vectors and scalars
- velocity-time graphs
- acceleration
- Newton's laws
- energy
- projectile motion

Space

- space exploration
- cosmology

Electricity

- electrical charge carriers
- potential difference (voltage)
- Ohm's law
- practical electrical and electronic circuits
- electrical power

Properties of matter

- specific heat capacity
- specific latent heat
- gas laws and the kinetic model.

Waves

- wave parameters and behaviours
- electromagnetic spectrum
- refraction of light

Radiation

- nuclear radiation

Skills Developed

- demonstrating knowledge and understanding of physics by making accurate statements
- demonstrating knowledge and understanding of physics by describing information and providing explanations and integrating knowledge
- applying knowledge of physics to new situations, interpreting information and solving problems
- planning or designing experiments to test given hypotheses or to illustrate particular effects, including safety measures
- carrying out experimental procedures safely
- selecting information from a variety of sources
- presenting information appropriately in a variety of forms
- processing information (using calculations and units, where appropriate)
- making predictions based on evidence/information
- drawing valid conclusions and giving explanations supported by evidence/justification
- evaluating experimental procedures
- suggesting improvements to experiments/practical investigations
- communicating findings/information

Assessment

Exam Paper
135 marks

Assignment
20 marks

Related Careers

A qualification in Physics can lead to careers in:

- flight
- engineering
- construction (electrician)
- scientific research
- architecture

Heather Reid, Brian May, Albert Einstein and Stephen Hawking and Brian Cox all studied Physics!

