

The Henslow School BTEC Unit Planning Overview

*This is a summary for parents, carers and students which shows the likely areas of study.
It will be adapted by the teacher to suit groups and individuals.*

Subject/Qualification	Introductory BTEC in Science: Exploring Physics
Year group/Class information	Year 11
Approx Number of lessons per week	4

Element	Knowledge and Skills / Assignment Content
Underpinning Knowledge	<p>Energy stores and energy transfers</p> <ul style="list-style-type: none"> • Importance of energy stores and energy transfers • Measuring energy <p>Waves</p> <ul style="list-style-type: none"> • Transverse and Longitudinal Waves • Measurements e.g. wavelength, amplitude and frequency e.g. hertz (Hz). • Using meters to measure waves • Seeing how the wave shown on a sound meter or cathode ray oscilloscope (CRO) changes as the frequency and loudness of the sound changes. • Investigating how waves are reflected. <p>Electricity</p> <ul style="list-style-type: none"> • Components e.g. ammeter, voltmeter, battery, resistor, bulb, cell, wire. • Basic circuit theory <p>Physics and the environment</p> <ul style="list-style-type: none"> • Uses of physics e.g. predict the weather, analyse contents of atmosphere, find out how the sun's radiation interacts with gases in our atmosphere, measure heat inputs and outputs from space. • Scientific equipment to monitor change in our environment, e.g. remote sensing, equipment using passive and active sensors, satellites, weather sensors, telescopic cameras, solar wind power. <p>Transferable skills</p> <ul style="list-style-type: none"> • Managing information • Problem solving
Assignment	<p>Two-part Assignment</p> <p>Part 1 – Explore different aspects of Physics</p> <p>Part 2 - Construct simple electrical circuits safely and take electrical measurements</p>