

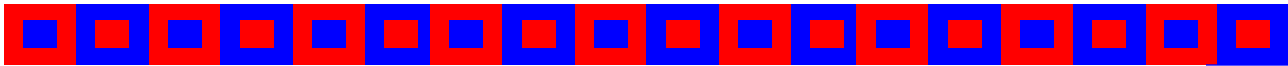
## Physics

It is recommended that candidates embarking on the course should have at least obtained GCSE Science (Grade B). Also a grade C in GCSE Mathematics is essential.

**Contact: Mr N. McGinty**

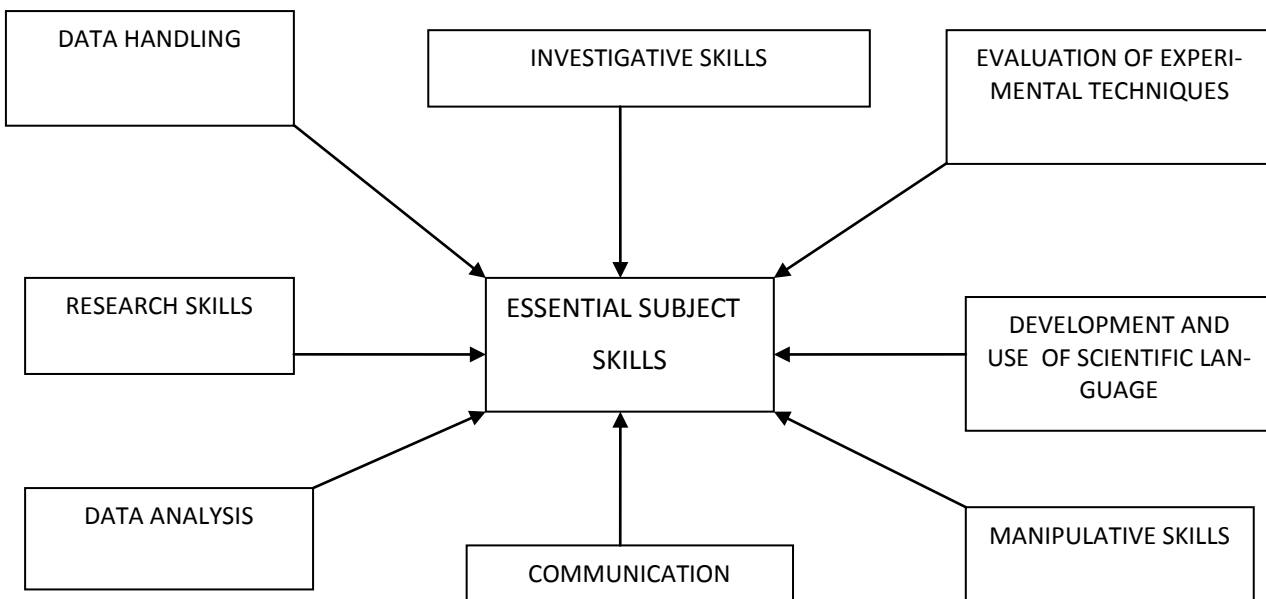
### Course Content and Structure

<b>Advanced Subsidiary AS (2 units)</b>	<b>Advanced Level A2 (3 units)</b>
<p style="text-align: center;"><b>AS Unit 1: Motion, Energy &amp; Matter</b> Weighting: 20%</p> <p>This unit covers the following areas:</p> <ul style="list-style-type: none"> <li>Basic Physics</li> <li>Kinematics</li> <li>Dynamics</li> <li>Energy Concepts</li> <li>Solids under stress</li> <li>Using radiation to investigate stars</li> <li>Particles and nuclear structure</li> </ul>	<p style="text-align: center;"><b>A2 Unit 3: Oscillation and Nuclei</b> Weighting: 25%</p> <p>This unit covers the following areas:</p> <ul style="list-style-type: none"> <li>Circular motion</li> <li>Vibrations</li> <li>Kinetic Theory</li> <li>Thermal physics</li> <li>Nuclear decay</li> <li>Nuclear energy</li> </ul>
<p style="text-align: center;"><b>AS Unit 2: Electricity &amp; Light</b> Weighting: 20%</p> <p>This unit covers the following areas:</p> <ul style="list-style-type: none"> <li>Conduction of Electricity</li> <li>Resistance</li> <li>D.C. Circuits</li> <li>The nature of waves</li> <li>Wave properties</li> <li>Refraction of Light</li> <li>Photons</li> <li>Lasers</li> </ul>	<p style="text-align: center;"><b>A2 Unit 4: Fields and Options</b> Weighting: 25%</p> <p>This unit covers the following areas:</p> <ul style="list-style-type: none"> <li>Capacitance</li> <li>Electrostatic and Gravitational fields</li> <li>Orbits and the wider universe</li> <li>Magnetic fields</li> <li>Electromagnetic Induction</li> </ul> <p><b>Choice of one option out of four:</b></p> <ul style="list-style-type: none"> <li>Alternating currents</li> <li>Medical Physics</li> <li>The Physics of Sports</li> <li>Energy and the Environment</li> </ul>
	<p style="text-align: center;"><b>A2 Unit 5: Practical Examination</b> Weighting: 10%</p>
AS = 2 units (studied in Year 12) plus A2 = 3 units (studied in Year 13) equals full A-level	



**Assessment:**

Year 12 AS (2 Units)	Year 13 A2 (3 Units)
AS Unit 1 – 1½ hour exam in May/June 20% of qualification	A2 Unit 3 – 2 hours 15 minutes exam in June 25% of qualification
AS Unit 2 – 1½ hour exam in May/June 20% of qualification	A2 Unit 4 – 2 hour exam in June 25% of qualification
	A2 Unit 5 – Practical Examination 10% of qualification



**Progression at 18+**

Fully acceptable qualification for entry to university & higher education in general.  
Wide range of career possibilities including:

All Engineering, Medicine, Teaching, Veterinary Science, Accountancy, Optics to name but a few.

