

KS4 - Physics Triple - Intent Statement

- Energy (4.1)
 - Energy changes in a system, and the ways energy is stored before and after such changes (4.1.1) [Ch 1]
 - Conservation and dissipation of energy (4.1.2) [Chapters 1 & 2]
 - National and global energy resources (4.1.3) [Chapter 3]
- Electricity (4.2)
 - Current, potential difference and resistance (4.2.1) [Chapters 4 & 5]
 - Series and parallel circuits (4.2.2) [Chapter 4]
 - Domestic uses and safety (4.2.3) [Chapter 5]
 - Energy transfers (4.2.4) [Chapters 1, 2, 3 & 5]
 - Static electricity (4.2.5) [Chapter 4]
- Particle Model of Matter (4.3)
 - Changes of state and the particle model (4.3.1) [Chapter 6]
 - Internal energy and energy transfers (4.3.2) [Chapter 6]
 - Particle model and pressure (4.3.3) [Chapters 6 & 11]
- Atomic Structure (4.4)
 - Atoms and isotopes (4.4.1) [Chapter 7]
 - Atoms and nuclear radiation (4.4.2) [Chapter 7]
 - Hazards and uses of radioactive emissions and of background radiation (4.4.3) [Chapter 7]
 - Nuclear fission and fusion (4.4.4) [Chapter 7]
- Forces (4.5)
 - Forces and their interactions (4.5.1) [Chapters 8 & 10]
 - Work done and energy transfer (4.5.2) [Chapter 8]
 - Forces and elasticity (4.5.3) [Chapters 8 & 10]
 - Moments, levers and gears (4.5.4) [Chapter 8]
 - Pressure and pressure differences in fluids (4.5.5) [Chapter 11]
 - Forces and motion (4.5.6) [Chapters 9 & 10]
 - Momentum (4.5.7) [Chapters 10]
- Waves (4.6)
 - Waves in air, fluids and solids (4.6.1) [Chapter 12]
 - Electromagnetic waves (4.6.2) [Chapters 13 & 14]
 - Black body radiation (4.6.3) [Chapters 13]

- Magnetism & Electromagnetism (4.7)
 - Permanent and induced magnetism, magnetic forces and fields (4.7.1) [Chapter 15]
 - The motor effect (4.7.2) [Chapter 15]
 - Induced potential, transformers and the National Grid (4.7.3) [Chapter 15]

- Space Physics (4.8)
 - Solar system; stability of orbital motions; satellites (4.8.1) [Chapter 16]
 - Red-shift (4.8.2) [Chapter 16]