

Subject:

Subject: Science - Physics

Year 10 Exam Board and Specification: Physics: AQA Trilogy AQA (combined science) Physics separate award AQA	Year 11 Exam Board and Specification: Additional Science P2 AQA / Triple award Physics P2 and P3 AQA/ Science A (core) P1 AQA
September-October Half Term <u>5.2 Energy</u> <i>Energy changes in a system and the ways energy is stored before and after such changes</i> 5.2.1.1 Energy stores and systems 5.2.1.2 Changes in energy 5.2.1.3 Energy changes in systems 5.2.1.4 Work Forces and energy P2.2.1a, b 5.2.1.5 Power	September-October Half Term <u>Forces and their effects</u> P2.1.5 Forces and elasticity P2.1.1 Resultant forces P2.1.2 Forces and motion, K.E and P.E P2.1.4 Forces and terminal velocity P2.1.3 Forces and braking P2.2.1 Forces and energy P2.2.2 Momentum
November-December Half Term <u>Conservation and dissipation of energy</u> 5.2.2.1 Energy transfers in a system 5.2.2.2 Efficiency 5.2.2.3 National and global energy resources	November-December Half Term <u>Currents in electrical circuits</u> P2.3.1 Static electricity P2.3.2 Electrical circuits P2.4.1 Household electricity P2.4.2 Current charge, power
January-February Half Term <u>5.4 Electricity</u> <i>Current, potential difference and resistance</i> 5.4.1.1 Standard circuit diagram symbols 5.4.1.2 Electrical charge and current 5.4.1.3 Current, resistance and potential difference 5.4.1.4 Resistors 5.4.2 Series and parallel circuits <u>Domestic uses and safety</u> 5.4.3.1 Direct and alternating current 5.4.3.2 Mains electricity <u>5.4.4 Energy transfers</u> 5.4.4.1 Power Current, charge and power	January-February Half Term <u>What happens when radioactive substances decay, and the uses and dangers of their emissions</u> P2.5.1 Atomic structure P2.5.2 Atoms and radiation <u>Nuclear fission and nuclear fusion</u> P2.6.1 Nuclear fission P2.6.2 Nuclear fusion <u>P3 triple Physics only</u> <u>P3.1 Medical applications of physics</u> P3.1.1 X-rays P3.1.2 Ultrasound P3.1.3 Lenses P3.1.4 The eye P3.1.5 Other applications using light

Subject:

<p>5.4.4.2 Energy transfers in everyday appliances 5.4.4.3 National Grid</p>	<p><i>P3.2 Using physics to make things work</i> <i>P3.2.1 Centre of mass</i> <i>P3.2.2 Moments</i> <i>P3.2.3 Hydraulics</i> <i>P3.2.4 Circular motion</i> <i>P3.3 Keeping things moving</i> <i>P3.3.1 The motor effect</i> <i>P3.3.2 Transformers</i></p>
<hr/> <p>April - May Half Term</p> <hr/>	
<p><u>Changes of state and the particle model</u></p> <p>5.6.1.1 Density of materials 5.6.1.2 Changes of state <u>5.6.2 Internal energy and energy transfers</u> 5.6.2.1 Internal energy Energy transfer 5.6.2.2 Temperature changes in a system and specific heat capacity 5.6.2.3 Changes of state and specific latent heat 5.6.3 Particle model and pressure</p> <p>June-July Half Term</p> <p>5.7 Atomic structure</p>	
<p>5.7.1 Atoms and isotopes 5.7.1.1 The structure of an atom 5.7.1.2 Mass number, atomic number and isotopes</p> <p><u>5.7.2 Atoms and radiation</u> 5.7.2.1 Radioactive decay and nuclear radiation 5.7.2.2 Nuclear equations 5.7.2.3 Half-lives and the random nature of radioactive decay 5.7.2.4 Radioactive contamination</p>	

Subject:

Exams : Year 10 exam	
Year 11 Trilogy (dates to follow)	
<p>5.1 Forces <u>5.1.1 Forces and their interactions</u> 5.1.1.1 Scalar and vector quantities 5.1.1.2 Contact and non-contact forces 5.1.1.3 Gravity 5.1.2 Work done and energy transfer 5.1.3 Forces and elasticity <u>5.1.4 Forces and motion</u> 5.1.4.1 Describing motion along a line 5.1.4.1.1 Distance and displacement Distance 5.1.4.1.2 Speed 5.1.4.1.3 Velocity Forces and motion 5.1.4.1.4 The distance-time relationship 5.1.4.1.5 Acceleration <u>5.1.4.2 Forces, acceleration and Newton's laws of motion</u> 5.1.4.2.1 Newton's First Law Resultant forces 5.1.4.2.2 Newton's Second Law Forces and motion 5.1.4.2.3 Newton's Third Law Resultant forces 5.1.4.2 Forces and braking 5.1.4.3.1 Stopping distance Forces and braking 5.1.4.3.2 Reaction time Forces and braking 5.1.4.3.3+4 Factors affecting braking distance Forces and braking <u>5.1.5 Momentum</u> 5.1.5.1 Momentum is a property of moving objects 5.1.5.2 Conservation of momentum</p> <p>5.3 Waves <u>5.3.1 Waves in air, fluids and solids</u> 5.3.1.1 Transverse and longitudinal waves 5.3.1.2 Properties of waves General properties of waves <u>5.3.2 Electromagnetic waves</u> 5.3.2.1 Types of electromagnetic waves</p>	

Subject:

5.3.2.2 Properties of electromagnetic waves I	
5.3.2.3 Properties of electromagnetic waves II	
5.3.2.4 Uses and applications of electromagnetic waves	
5.5 Magnetism and electromagnetism	
<u>5.5.1 Permanent and induced magnetism, magnetic forces and fields</u>	
5.5.1.1 Poles of magnet	
5.5.1.2 Magnetic fields	
<u>5.5.2 The motor effect</u>	
5.5.2.1 Magnetic effect of a current and solenoids	
5.5.2.2 Motor effect I	
5.5.2.3 Motor effect II	