

# Physics Overview 2016-2019 Y9 with triple

Assumed prior knowledge	Physics Y9	Physics Y10	Physics Y11
	<b>Energy 6.1</b> 6.1.1.1 Energy stores and systems 6.1.1.4 Power 6.1.2.1 Energy transfers in a system (RP) 6.1.3 National and global energy resources 6.1.2.2 Efficiency 6.1.1.3 Energy changes in systems (RP14)	<b>Energy 6.1</b> 6.1.1.2 Changes in energy (ke, epp, gpe)	<b>Energy 6.1</b>
	<b>Electricity 6.2</b> 6.2.4.2 Energy transfers in everyday appliances 6.2.1.1 Standard circuit symbols 6.2.1.2 Electrical charge and current 6.2.1.3 Current, resistance and PD (RP15) 4.2.5 Static	<b>Electricity 6.2</b> 6.2.2 Series and parallel circuits (RP15 pt 2)	<b>Electricity 6.2</b> 6.2.1.4 Resistors (RP16) 6.2.4.3 The national grid 6.2.3.1 Direct and alternating current 6.2.3.2 Mains electricity
	<b>Particle model of matter 6.3</b>	<b>Particle model of matter 6.3</b> 6.3.1.1 Density of materials (RP17) 6.3.2.2. Temperature changes in a system and specific heat capacity 6.3.3.1 Particle motion in gases 4.3.3.2 Pressure in Gases 4.3.3.3 Increasing pressure 6.3.2.3 Changes of heat and specific latent heat	<b>Particle model of matter 6.3</b>
	<b>Atomic structure 6.4</b>	<b>Atomic structure 6.4</b> 6.4.1.3 The development of the model of the atom (also in chemistry - Focus on plum pudding) 6.4.1.1 The structure of an atom (size, ions) 6.4.1.2 Mass number, atomic number and isotopes 6.4.2.1 Radioactive decay and nuclear radiation 6.4.2.2 Nuclear equations 6.4.2.3 Half lives 6.4.2.4 Radioactive contamination	<b>Atomic structure 6.4 Taught to trilogy Y10 triple y11</b> 6.4.1.3 The development of the model of the atom (also in chemistry - Focus on plum pudding) 6.4.1.1 The structure of an atom (size, ions) 6.4.1.2 Mass number, atomic number and isotopes 6.4.2.1 Radioactive decay and nuclear radiation 6.4.2.2 Nuclear equations 6.4.2.3 Half lives 6.4.2.4 Radioactive contamination 4.4.3 Hazards and uses of radioactive emissions and of background 4.4.4 Fission and Fusion
	<b>Forces 6.5</b> 6.5.1.1 Scalar and vector quantities 6.5.1.2 Contact and non-contact forces 6.5.1.3 Gravity 6.5.4.1.1 Distance and displacement 6.5.4.1.2 Speed 6.5.4.1.3. Velocity 6.5.4.2.1 Newton's first law 6.5.4.2.3 Newton's third law 6.5.4.3.1. Stopping distances (y10?) 6.5.4.3.2 Reaction time (y10?)	<b>Forces 6.5</b> 6.5.1.4 Resultant forces (mostly HT) 6.5.2 Work done and energy transfer 6.5.4.1.4 The distance-time relationship 6.5.4.1.5 Acceleration 6.5.4.2.2 Newton's second law (RP19) 6.5.4.3.3 Factors affecting braking distance 1 6.5.4.3.4 Factors affecting braking distance 2 6.5.5.1 Momentum 6.5.5.2 Conservation of momentum 4.5.7.3 Changes in momentum	<b>Forces 6.5</b> 6.5.3 Forces and elasticity (RP18) 6.5.5.1 Momentum 6.5.5.2 Conservation of momentum 4.5.4 Moments 4.5.5 Pressure and pressure differences in fluids
	<b>Waves 6.6</b> 6.6.1.1. Transverse and longitudinal waves 6.6.1.2 Properties of waves (RP20) 4.6.1.3 Reflection (RP) 4.6.1.4 Sound 6.6.2.1 Types of EM waves 6.6.2.4 Uses of electromagnetic waves	<b>Waves 6.6</b> 6.6.2.2 Properties of electromagnetic waves 1 (RP21) 6.6.2.3 Properties of electromagnetic waves 2 4.6.3. Black body radiation	<b>Waves 6.6</b> 4.6.2.5 lenses 4.6.2.6 Visible light 4.6.1.5 Waves for detection and exploration
	<b>Magnetism and electromagnetism 6.7</b> 6.7.1.1 Poles of a magnet 6.7.1.2 Magnetic fields	<b>Magnetism and electromagnetism 6.7</b>	<b>Magnetism and electromagnetism 6.7</b> 6.7.2.1 Electromagnetism 6.7.2.2 Fleming's left-hand rule 4.7.2.4 Loudspeakers 4.7.3 Induced potential
	<b>Space Physics 4.8</b>	<b>Space Physics 4.8</b> 4.8.1 Solar systems 4.8.2 Red shift	<b>Space Physics 4.8</b>

Triple only

Triple HT only

Taught in year 11 in Trilogy Y10 in triple

(RP) required practical for triple only

(RP) required practical for all