

Physics Overview 2023-2026 Y9 with separate science in purple

Assumed prior knowledge	Physics Y9	Physics Y10	Physics Y11
	Energy 6.1 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	Energy 6.1 6.1.1.3 Energy changes in systems (RP14) taught in particles	Energy 6.1 6.1.1.2 Changes in energy (ke, epp, gpe)
	Electricity 6.2 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	Electricity 6.2 6.2.4.3 The national grid 6.2.3.1 Direct and alternating current 6.2.3.2 Mains electricity	Electricity 6.2 6.2.1.4 Resistors (RP16) 6.2.2 Series and parallel circuits
	Particle model of matter 6.3	Particle model of matter 6.3 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	Particle model of matter 6.3
	Atomic structure 6.4 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	Atomic structure 6.4 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	Atomic structure 6.4 4.4.3 Hazards and uses of radioactive emissions and of background 4.4.4 Fission and Fusion
	Forces 6.5 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 6.5.4.3.2 Reaction time	Forces 6.5 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	Forces 6.5 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
	Waves 6.6 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	Waves 6.6 6.6.2.2 Properties of electromagnetic waves 1 (RP21) 6.6.2.3 Properties of electromagnetic waves 2 move for triple groups 6.6.2.1 Types of EM waves 6.6.2.4 Uses of electromagnetic waves 4.6.3. Black body radiation	Waves 6.6 4.6.2.5 lenses 4.6.2.6 Visible light 4.6.1.5 Waves for detection and exploration
	Magnetism and electromagnetism 6.7 6.7.1.1 Poles of a magnet 6.7.1.2 Magnetic fields 6.7.1.2 Magnetic fields (Earth's magnetic field)	Magnetism and electromagnetism 6.7 6.7.2.1 Electromagnetism 6.7.2.2 Fleming's left-hand rule	Magnetism and electromagnetism 6.7 4.7.2.4 Loudspeakers 4.7.3 Induced potential
	Space Physics 4.8 4.8.1 Solar systems	Space Physics 4.8 4.8.2 Red shift	Space Physics 4.8

Separate only

Separate HT only

Taught in year 11 in Trilogy Y10 in separate

(RP) required practical for separate only

(RP) required practical for all