



	Year Group	Autumn Term	Spring Term	Summer Term
	7	Energy - Fossil fuels - Renewable energy - Measuring energy - Energy transfers and stores	Electricity - Electrical circuits - Current - Voltage - Resistance - Series and parallel circuits	Sound - Ears and Waves Forces - Types of forces - Spring extension - Drawing graphs - Balanced/unbalanced forces - Friction
	8	Light - Light - Reflection - Refraction - Spectrum - Colours Materials - Density - Change of state - Pressure - Floating and sinking	Particles – Solids, liquids and gases - Heat and Temperature - Conduction - Convection - Radiation - Insulators - Expansion / contraction	Force and Pressure - Speed/distance - Pressure The Solar System - Shadows - Umbra / Penumbra - Time (days, seasons) - Phases of the moon - Solar System
Seniors	OCR GCSE PHYSICS (9-1) J240 Specification available at: http://www.ocr.org.uk/qualifications/gcse-gateway-science-suite-physics-a-j249-from-2016/			
	9	- Forces – Speed, vectors and scalars and gravity. - Magnets – Repel, attract, magnetic fields, permanent and induced magnetism.	- Waves – Longitudinal and transverse, wave speed, electromagnetic waves and their uses. - Matter – Physical and chemical changes, conservation of mass and density.	- Electricity – Charges, static, current, potential difference, series and parallel circuits and plugs. - Energy – conservation of energy, stores of energy, transfers, efficiency, energy uses and trends.
	10	- Electromagnetism – electric current and magnetic fields. - Forces – Hooke's law (springs), acceleration, stopping distances, motion graphs. - Matter – Calculating density, size, structure and history of the atom.	- Electricity – electrical components, I-V graphs, energy and power transferred in circuits - Radioactivity – alpha, beta and gamma, contamination and irradiation. *Pressure – temperature and pressure of gases.*	- Energy – calculating energy stores and transferred. - Newton's 3 laws, momentum *Space – Our solar system, orbits, star life cycle, red shift*
	11	*Waves – Ray diagrams, reflection, refraction & lenses. The ear.* - Waves – Reflection, refraction, transmission and absorption. - Electromagnets – Fleming's left-hand rule and uses. - Forces – Vector diagrams, $v^2 - u^2 = 2 a s$.	- Electricity – Electric fields and transformers. - Radioactivity – Half life. *Radioactivity – nuclear fission and fusion.* *Forces - moments and gears.*	- Synoptic – Making links between topics - Revision

*** Triple content only***