	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, work done, power, energy uses and trends.
	10	• *Waves – Ray diagrams, reflection, refraction & lenses. The ear. • Electromagnetism – electric current and magnetic fields. • Forces – Hooke's law (springs), acceleration, stopping distances, motion graphs, momentum, Newton's 3 laws. • *Forces - moments and gears.	• Matter – Calculating density, size, structure and history of the atom. • Electricity – Testing electrical components, I-V graphs, energy and power transferred in circuits	• Energy – calculating energy stores and transferred. • Pressure – temperature and pressure of gases. • Radioactivity – alpha, beta and gamma, contamination and irradiation.
	11	• 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. • *Space – Our solar system, orbits, star life cycle, red shift	• Synoptic – Making links between topics • Revision

* Triple content only