SUBJECT - Physics

Year 10			
Energy Energy stores and systems, changes in energy, energy changes in systems, power, energy transfers in systems, efficiency, national and global energy resources **Particle Model of Matter** Density of materials, change of state, internal energy, temperature changes in a system and specific heat capacity, changes of state and specific latent heat, particle motion in gases, pressure in gases	**Atomic Structure** The structure of the atom, mass number, atomic number and isotopes, the development of the model of the atom, radioactive decay and nuclear radiation, nuclear equations, radioactive contamination, background radiation, different half-lives of radioactive isotopes, uses of nuclear radiation, nuclear fission, nuclear fusion **Electric Circuits** Electric fields, standard circuit diagram symbols, electrical charge and current, current, resistance and potential difference, resistors, series and parallel circuits	**Electricity in the Home** Direct and alternating potential difference, mains electricity, power, energy transfers in everyday appliances, the national grid **Electromagnetism** Poles of a magnet, magnetic fields, electromagnetism, Fleming's left-hand rule, electric motors, loudspeakers, induced potential, uses of the generator effect, microphones, transformers.	
Assessment: **End of Term Test**	**Assessment:** **End of Term Test**	**Assessment:** **Paper 1 Mock**	
Year 11			
Waves Transverse and longitudinal waves, properties of waves, reflection of waves, sound waves, waves for detection and exploration, types of electromagnetic waves, properties of electromagnetic waves, uses and applications of electromagnetic waves, lenses, visible light, emission and absorption of infrared radiation, perfect black bodies and radiation. **Space Physics** Our solar system, The life cycle of a star, Orbital motion, natural and artificial satellites, red-shift	**Forces** Scalar and vector quantities, contact and non-contact forces, gravity, resultant forces, work done and energy transfer, forces and elasticity, moments, levers and gears, pressure in a fluid, atmospheric pressure, distance and displacement, speed, velocity, the distance–time relationship, acceleration, newton's first law, newton's second law, newton's third law, stopping distance, reaction time, factors affecting braking distance, momentum is a property of moving objects, conservation of momentum, changes in momentum	**Exam preparation**	

Assessment: **End of Term Test**	**Assessment:** **End of Term Test & Paper 2 Mock**	**Assessment:**	