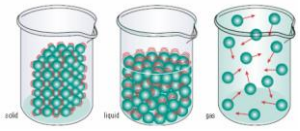
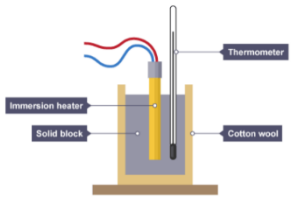
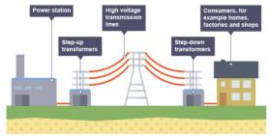
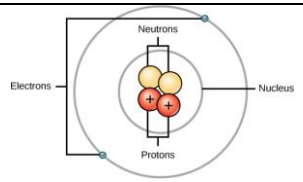
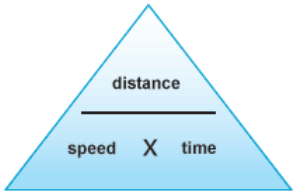
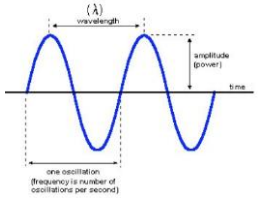
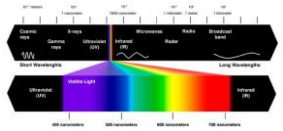
GCSE Physics Curriculum Map 2024-2025

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 9	 **Awesome Physics.** **Maths skills.** **Energy – Part 1.** Energy stores Energy stores and transfers Calculating energy Efficiency Transferring energy Part 1. Energy changes in a system Work and power	 **Electricity – Part 1.** Introduction to static and current electricity. Current, potential difference and resistance. Circuit symbols Electric current and charge Ohm's Law Required practical 3 Ohmic and non ohmic conductors Required practical 4	 **Particle Model of Matter.** Changes of state and the particle model. Density Required practical 5 Internal energy and energy transfers. Changes of state Specific latent heat Internal energy	 Transferring energy Part 2. Specific heat capacity Required practical 1 Heat transfer Insulation Required practical 2	 Energy – Part 2. National and global energy resources. Renewable and non-renewable resources Environmental impact of using different resources . Electricity – Part 2. Recap electricity part 1 Series and parallel circuits	 Electricity – Part 2. Circuits. AC and DC Mains electricity Electrical power part 1 Electrical power part 2 National Grid
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Year 10	 **Review of electricity part 2.** Static electricity. Static charge Electric fields **Review of particle model of matter.** Particle model and pressure. Particle motion in gases Pressure in fluids Atmospheric pressure	 **Atomic Structure.** Atoms and isotopes. Atomic structure History of the atom Nuclear model of the atom Atoms and radiation. Activity Properties of radiation Nuclear equations Atoms and radiation. The randomness of radioactivity Half life Safe use of radiation	 Hazards and uses of radiation. Background radiation Uses and dangers of radiation Fission and fusion. Nuclear fission Nuclear fusion	 **Forces Part 1.** Forces and their interactions. Naming forces Scalars and vectors Resultant forces and free body diagrams Forces and motion 1. Distance and displacement Speed Acceleration	 Forces motion 2. Motion graphs Stopping distance Reaction time Factors affecting braking distance **Waves Part 1.** Waves in air, fluids and solids. Properties of transverse and longitudinal waves Wave equation Required practical 8	 Wave behaviour. Reflection Refraction Required practical 9 Electromagnetic spectrum. Properties of EM waves Uses and dangers of EM waves

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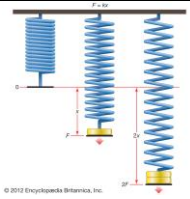
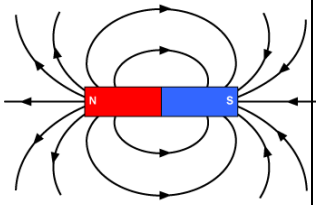
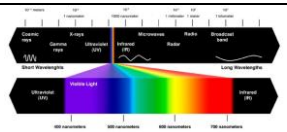
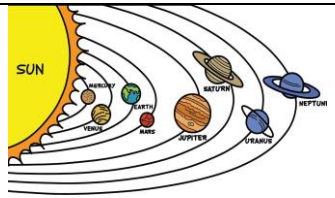
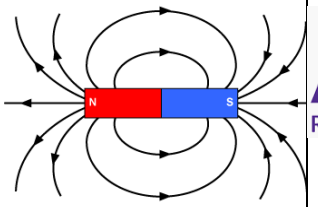
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 11	 **Forces Part 2.** Forces and their interactions. Recap of work done, scalars, vectors and resultant forces Resolving forces Hooke's Law and elasticity Moments	 **Forces Part 2.** Newtons Laws Momentum Safety features Terminal velocity **Magnetism Part 1.** Magnetism and electromagnetism Permanent and induced magnets Electromagnets The Motor Effect Flemings left hand rule Electric motors	 **Waves Part 2** Lenses Magnification Visible Light Blackbody Radiation Infrared radiation and temperature Required practical 10 Perfect black bodies	 **Space Physics** Life Cycle of a star The solar system and orbits Red-shift and the big bang Preparation for GCSE	 **Magnetism Part 2.** Induced Potential Generator effect Generators Loudspeakers & Microphones Transformers GCSE Revision **Retrieval practice and examination preparation**	AQA Realising potential **GCSE Examinations**