



| Half-term | Y9 Content Covered (plus N10) | Y10 Content Covered | Y11 Content Covered |
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| Autumn 1 | Energy part 1 – Stores, Conservation of energy, efficiency, Insulation and conduction, Insulation investigation, Power, use of standard form and prefixes, uncertainty of a set of data. | Waves part 1 – Classify waves, Measure waves, Reflection and absorption, Refraction and transmission, Reflection and refraction. | Atomic physics and radiation part 1 – Structure of atoms, Mass number, atomic number and isotopes, Nature and discovery of radioactivity Alpha, beta, gamma and neutron radiation, Nuclear equations. |
| Autumn 2 | Energy part 2 – Energy resources for the generation of electricity. | Waves part 2 – Electromagnetic spectrum, Uses and dangers of electromagnetic waves, comparisons of all electromagnetic waves. | Atomic physics and radiation part 2 – The development of the atomic model, half-life, radioactive hazards, contamination and irradiation. |
| Spring 1 | Forces and motion part 1 – Speed, acceleration, motion graphs Vectors and scalars, contact and non-contact forces, Resultant force and terminal velocity, Newton's 1st and 2nd laws. | Electricity and circuits part 1 – Drawing basic circuits, Electrical charge and current, Resistance and Ohm's law, Resistance of a wire, Non-ohmic conductors, Series and parallel connection rules, semiconductor components. | Revision part 1 – Examination-focussed revision. |
| Spring 2 | Forces and motion part 2 – Newton's 3rd law, $F=ma$ investigations, Weight and mass, Parachute investigation, Forces and elasticity, Hooke's law investigation. | Electricity and circuits part 2 – AC and DC, Cables and plugs, Earthing, Insulation, fuses and circuit breakers, Electrical energy and power, National Grid. | Revision part 2 – Examination-focussed revision. |
| Summer 1 | Linking Forces and energy part 1– Work done as an energy transfer, Stopping distances, Momentum Conservation of momentum, Rate of change of momentum. | Magnetism part 1 – Magnetic poles. Induced and permanent magnetism, Electromagnetism and applications, Motor effect and calculations, Electric motors. | Revision part 3 – Examination-focussed revision. Paper 1 examination. |
| Summer 2 | Linking Forces and energy part 2 – Calculating energy using equations: kinetic energy, work done, gravitational potential energy, elastic energy. Synoptic questions linking all the Y9 topics. | Particle model of matter – Density, changes of state, particle motion in gases, kinetic theory, specific heat capacity, specific latent heat. | Study leave. Paper 2 examination. |