Curriculum Plans – Year 10 – Physics – Academic Year 2023/24

Please find below a detailed outline of the curriculum covered in *Physics* through Year *10* in *Key Stage 4*.

BLOCK	1	2	3	4	5	6	7
Dates	**28th August - 27th September** (5 weeks)	**2nd October - 27th October** (4 weeks)	**6th November - 15th December** (6 weeks)	**3rd January - 2nd February** (5 weeks)	**12th February - 22nd March** (6 weeks)	**2nd April - 26th April** (4 weeks)	**6th May - 21st June** (7 weeks)
Topics	**Measurements and units** (Unit 1) • Review of Unit 1 • Practical skills **Forces and motion** (Unit 2) • Speed, velocity and acceleration • Motion graphs • Recording motion • Freefall • Forces in balance • Force, mass and acceleration • Friction • Force, weight and gravity • Action and reaction • Momentum • Vectors • Moving in circles • Practical skill	**Forces and pressure** (Unit 3) • Forces and turning effects • Centre of gravity • More about moments • Stretching and compressing • Pressure • Pressure in liquids • Pressure from the air • Gas pressure and volume • Pressure problems • Practical skills	**Forces and energy** (Unit 4) • Work and energy • Energy transformation • Calculating PE and KE • Efficiency and power • Energy for electricity • Energy resources • How the world gets its energy • Practical skills	**Thermal effects** (Unit 5) • Moving particles • Temperature • Expanding solids and liquids • Heating gases • Thermal conduction • Convection • Thermal radiation • Liquids and vapours • Specific heat capacity • Latent heat • Practical skills **Waves and Sounds** (Unit 6) • Transverse and longitudinal waves • Wave effects • Sound waves • Speed of sound and echoes • Ultrasound • Practical skills	**Rays and Waves** (Unit 7) • Light rays and waves • Reflection • Refraction • Total internal reflection • Refraction calculations • Lenses • Electromagnetic waves • Sending and sorting • Practical skills	**Electricity** (Unit 8) • Electric charge • Electric fields • Current in a simple circuit • Potential difference • Resistance • Ohm's Law • Series and parallel circuits • Electrical energy and power • Living with electricity • Practical skills	**Revision** (Revision of Year 10 Units) Forces and Motion Forces, Pressure and Energy Thermal Effects Waves, Sounds and Rays • Electricity experiments **End of Y10 Assessment** **Revision of Y10**
Assessments	Unit 1 and 2 Assessment	Unit 1-3 Assessment	Unit 1-4 Assessment	Unit 1-6 Assessment	Unit 1-7 Assessment	Unit 1-8 Assessment	**End of Y10 Assessment**
Academic Theme	Planning for Tomorrow	The World around us	Better Together	The Working World	Opportunities for Everyone	Keep it Green, Keep it Clean	Healthy Body, Healthy Mind