	Year:10 Subject: Physics **IMPLEMENTATION**					
INTENT (including key concepts and skills)	**Half Term 1** **Context:** P2 Electricity **Key Vocabulary:** Electricity, Current, charge, series, parallel, potential difference, efficiency, energy transfers. **Prior Learning** Y7 E2 Energy in circuits Y8 E3 Thermal energy Y9 E5 Using Energy **Cultural Capital:** How the home is wired up and how to refit a plug. How to calculate efficiency savings when buying household appliances.	**Half Term 2** **Context:** P3 Matter (and Radiation) **Key Vocabulary:** States of matter, density, pressure, gas, solid, liquid, volume, Gas pressure, Gas volume. **Prior Learning** Y7 P1 Particles and states of matter Y8 E3 Thermal energy/ E4 Energy and waves Y9 E5 Using energy + P1 Energy (GCSE topic) **Cultural Capital:** Understanding why there are changes of state and why some liquids warm up and cool down more quickly than others.	**Half Term 3** **Context:** P3 (Matter and) Radiation **Key Vocabulary:** Atoms, radiation, alpha, beta, gamma, decay, half-life, nuclear fission, nuclear fusion, nuclear radiation **Prior Learning** Y8 E3 Thermal energy Y9 E5 Using energy **Cultural Capital:** Understanding of how smoke alarms detect smoke using alpha radiation. An understanding in how catastrophic the Chernobyl and Fukushima disasters were. How radiation is used in medicine to treat tumours.	**Half Term 4** **Context:** P4 Forces **Key Vocabulary:** Vectors, scalars, forces, moments, levers, equilibrium resultant, resolution, displacement, unbalanced. **Prior learning:** Y7 F1 Forces, an introduction Y9 F5 Forces advanced **Cultural Capital**: Why displacement is different from distance travelled. Where the centre of mass is for various objects. Why seesaws can balance people of different masses.	**Half Term 5** **Context:** P4 Forces **Key Vocabulary** Velocity, acceleration, motion, speed, distance, terminal velocity, conservation of momentum, Safety, impact, pressure, upthrust and flotation. **Prior Learning** Y8 F3 Forces and transport, F4 Forces and motion **Cultural Capital:** How do speed cameras catch speeding motorists. How resultant forces must be calculated when designing vehicles. Maintaining safety during collisions.	**Half Term 6** **Context:** Summer Summative revision Moving onto P5 Waves **Key Vocabulary:** Reflection, refraction, ultrasound, radio, microwave, infrared, UV, X-rays, gamma, seismic, electromagnetic spectrum, communications, Lenses, electromagnets, motors. **Prior Learning:** Y8 E4 Energy and Waves **Cultural Capital:** How can waves be used to treat cancers and heat up our food?
Applying knowledge and understanding to explain observations	X	X	X	X	X	X
Use different types of scientific enquiry to answer scientific questions	X	X	X	X	X	X
Use technical terminology with confidence accuracy and precisely	X	X	X	X	X	X
Apply mathematical knowledge to scientific understanding	X	X	X	X	X	X
Aware of some of the social and economic implications of science	X	X	X	X	X	X
IMPACT	Assessment: P2 End of Topic Assessment	Assessment: At end of P3	Assessment: P3 End of Topic Test	Assessment: At end of P4	Assessment: P4 End of Topic Test	Assessment: Summer Summative on Physics Paper 1 content.

Cultural Capital is the body of knowledge a student needs so that they can flourish in the future and not be left behind.