Curriculum Map Year 11 Combined Science - Physics

Topic Name	**Term**	**Skills** developed with link to NC Subject content	Reflection on previous link in the curriculum	Progress to future link in the curriculum
Forces	*Autumn HT1*	**Understanding of:** ● Speed and D-T graphs ● Acceleration and V-T graphs ● Equation of linear motion ● Forces and resultant forces ● Newton's laws of motion ● Weight and mass ● Momentum ● Road safety ● Hooke's law	Year 7: Forces ● What is a force ● Resultant forces ● Newton's second law ● Weight and mass ● Hooke's law ● Speed, distance and time	Year 12: Forces ● Scalars and vectors ● Forces in equilibrium ● Moments ● Momentum ● D-T, V-T and A-T graphs ● Newton's laws of motion ● Equations of linear motion ● Work and power ● Projectile motion
Electromagnetism	*Autumn HT2*	**Understanding of:** ● Magnetic fields and forces ● Plotting magnetic field lines ● Solenoids and electromagnets ● Uses of electromagnets ● Calculating the force on a conductor ● The motor effect	Year 8: Electromagnetism ● Permanent magnets and magnetic fields ● Compasses and the earth's magnetic field ● Electromagnets and their applications ● The kicking wire ● Applications of electromagnets	Year 13: Magnetic fields ● Magnetic flux density ● Forces on current carrying wire and charged particles ● Electromagnetic induction ● Faraday's law and Lenz's law ● Transformers
Reflection and preparation for examinations	*Spring HT3*	Recap and reflection on content learnt during year 10 & 11 Exam question focus Application question focus Mathematical skills focus Scientific skills focus	Year 10 and Year 11 content	
Reflection and preparation for examinations	*Spring HT4*	Recap and reflection on content learnt during year 10 & 11 Exam question focus Application question focus Mathematical skills focus Scientific skills focus	Year 10 and Year 11 content	
Reflection and preparation for examinations	*Summer HT5*	Recap and reflection on content learnt during year 10 & 11 Exam question focus Application question focus Mathematical skills focus Scientific skills focus	Year 10 and Year 11 content	
Examination period	*Summer HT6*			