

### Physics Year 11 Spring 1

Chapter and Topic	Lesson	Outcomes
P10 Force and motion	P10 Force and acceleration	State what the acceleration of an object is dependent on Calculate the force, mass and acceleration Define inertia (H)
	P10 Req Practical Force and Acceleration	
	P10 Weight and Terminal Velocity	State the difference between mass and weight Define terminal velocity Explain what happens to the resultant forces in terminal velocity
	P10 Forces and braking	State the opposing forces to a car in motion Identify the factors that affect braking and stopping distance Calculate braking force
	P10 Momentum (H)	Calculate momentum State the unit of momentum State the Law of Conservation of momentum
	P10 Forces and elasticity	Define what is meant when an object is elastic Define the limit of proportionality Carry out Hooke's Law
	P10 Req practical Stretch Tests	
		State what waves are and what they can be used for Describe longitudinal and transverse waves Categorise transverse and longitudinal waves
		State what is meant by amplitude, frequency and wavelength Relate the period of a wave to its frequency Calculate the wavelength, speed and frequency of a wave
		Describe the patterns of reflection and refraction Describe how the behaviour of waves can explain reflection and refraction

		Explain what can happen to a wave when it passes a boundary between two mediums
		Describe what sound waves are Explain how to investigate waves

P13 Electromagnetism	P13 Magnetic fields	I can state what materials are magnetic State the force rule for magnetic poles Describe the pattern of magnetic field lines around a magnet Explain what induced magnetism is Explain why steel is used to make permanent magnets
	P13 Magnetic fields of electric currents	State the pattern of magnetic fields around a straight wire Describe how the strength and direction vary with position and current Describe what a uniform magnetic field is Describe what an electromagnet is
	P13 The motor effect (H)	Explain what the motor effect is. Describe how a simple motor works. State what magnetic flux density is. Calculate the force on a current carrying wire