

AQA Trilogy Physics Paper 2		Covered in Lesson	Diagnosis			Revised		
P4.6. Waves			R	A	G	1	2	3
4.6.1 Waves in air, fluids and solids	Describe waves as either transverse or longitudinal, defining these waves in terms of the direction of their oscillation and energy transfer and giving examples of each							
	Define waves as transfers of energy from one place to another, carrying information							
	Define amplitude, wavelength, frequency, period and wave speed and Identify them where appropriate on diagrams							
	State examples of methods of measuring wave speeds in different media and Identify the suitability of apparatus of measuring frequency and wavelength							
	Calculate wave speed, frequency or wavelength by applying, but not recalling, the equation: [$v = f \lambda$] and calculate wave period by recalling and applying the equation: [$T = 1/f$]							
	Identify amplitude and wavelength from given diagrams							
	Describe a method to measure the speed of sound waves in air							
	Describe a method to measure the speed of ripples on a water surface							
	Required practical 8: make observations to identify the suitability of apparatus to measure the frequency, wavelength and speed of waves in a ripple tank and waves in a solid							
4.6.2 Electromagnetic waves	Describe what electromagnetic waves are and explain how they are grouped							
	List the groups of electromagnetic waves in order of wavelength							
	Explain that because our eyes only detect a limited range of electromagnetic waves, they can only detect visible light							
	HT ONLY: Explain how different wavelengths of electromagnetic radiation are reflected, refracted, absorbed or transmitted differently by different substances and types of surface							
	Illustrate the refraction of a wave at the boundary between two different media by constructing ray diagrams							
	HT ONLY: Describe what refraction is due to and illustrate this using wave front diagrams							
	Required practical activity 9: investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface.							
	HT ONLY: Explain how radio waves can be produced by oscillations in electrical circuits, or absorbed by electrical circuits							
	Explain that changes in atoms and the nuclei of atoms can result in electromagnetic waves being generated or absorbed over a wide frequency range							
	State examples of the dangers of each group of electromagnetic radiation and discuss the effects of radiation as depending on the type of radiation and the size of the dose							
State examples of the uses of each group of electromagnetic radiation, explaining why each type of electromagnetic wave is suitable for its applications								