




AQA Chapter 13 Checklist 2017

(Foundation Double)

Can you...?			
Chapter 13: Electromagnetic Waves			
State the parts of the electromagnetic spectrum.			
Explain the range of wavelengths within the electromagnetic spectrum that the human eyes can detect.			
Describe how energy is transferred by electromagnetic waves.			
Calculate the frequency or wavelength of electromagnetic waves.			
Describe the nature of white light.			
List some uses of infrared radiation, microwaves, and radio waves.			
State what mobile phone radiation is.			
Explain why these types of electromagnetic radiation are hazardous.			
Explain why radio waves of different frequencies are used for different purposes.			
State which waves are used for satellite TV.			
Describe how to decide whether or not mobile phones are safe to use.			
Describe how fibre optics are used in communications.			
Describe the differences between ultraviolet and visible light.			
List some uses of x-rays and gamma rays.			
State what ionising radiation is.			
Explain why ultraviolet waves, x-rays, and gamma rays are dangerous.			
Describe what x-rays are used for in hospitals.			
State which parts absorb x-rays when they pass through the body.			
Chapter 13: Equations I need to know.			
wave speed (v) (m/s) = frequency (f) (Hz) x wavelength (λ) (m)			
Chapter 13: Equations I am given and need to use.			
None!			
Chapter 13: Key words I need to know.			
Charge-coupled device (CCD): <i>an electronic device that creates an electronic signal from an optical image formed on the CCD's array of pixels.</i>			
Contrast medium: <i>an x-ray absorbing substance used to fill a body organ so the organ can be seen on a radiograph.</i>			
Gamma rays: <i>a high frequency electromagnetic wave emitted from the nucleus of a radioactive atom. Gamma rays have the highest frequency in the electromagnetic spectrum.</i>			

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Infrared radiation: <i>electromagnetic waves between visible light and microwaves in the electromagnetic spectrum.</i>			
Ionisation: <i>a process in which atoms become charged.</i>			
Microwaves: <i>electromagnetic waves between infrared radiation and radio waves in the electromagnetic spectrum.</i>			
Radiation dose: <i>amount of ionising radiation a person receives.</i>			
Radio waves: <i>electromagnetic waves of wavelengths greater than 0.10m.</i>			
Ultraviolet radiation: <i>electromagnetic waves between visible light and x-rays on the electromagnetic spectrum.</i>			
Visible light: <i>electromagnetic waves that can be detected by the human eye.</i>			
Wave speed: <i>the distance travelled per second by a wave crest or trough.</i>			
X-rays: <i>electromagnetic waves smaller in wavelength than ultraviolet radiation produced by x-ray tubes.</i>			