

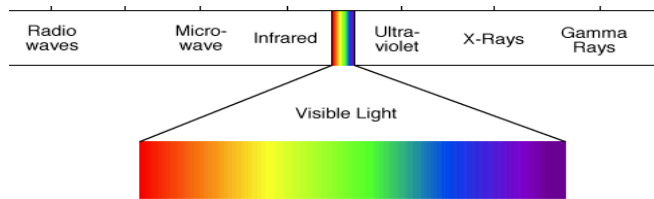
Use the circles to help you with your learning

😊 I know this well

😐 I know this a bit

☹️ I don't know this yet

I know that the **electromagnetic spectrum** is the name given to the family of waves that includes Radio & TV, Microwaves, Infra-red, Visible Light, Ultraviolet, X-rays and Gamma rays.

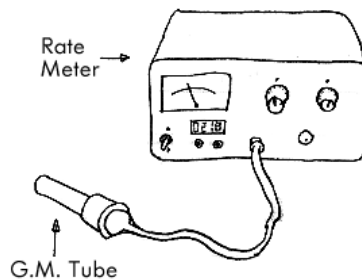


I can describe some of the differences between all the waves in the electromagnetic spectrum.

I can demonstrate how 'white' light can be split up into a visible spectrum of colours (ROYGBIV)

I can describe the appearance of a laser, and be able to describe some ways lasers are used today (in communication, entertainment and medicine.)

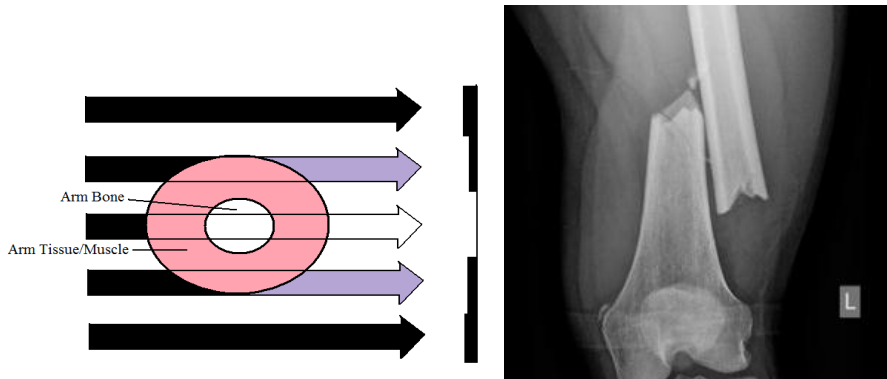
I know that gamma rays can be detected by using a Geiger-Muller tube (GM Tube)



I know that X-rays are detected by using **Photographic Film**

I know that X-rays are used to diagnose illness or broken bones.

I can describe how an X-ray photograph is produced due to absorption of X-rays by bones and tissue



I know that X-rays can also be used to produce a 3D image in CT Scans.

I know that ultraviolet light can cause certain materials to glow (fluoresce) which can be used in security and to detect forgeries.



I know that Ultraviolet light is needed for healthy skin, teeth and bones.

I know that too much exposure to Ultraviolet light can increase the risks of skin cancers.

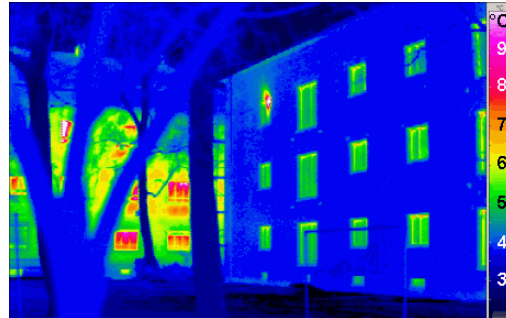
I know that Infra-red radiation is another name for 'heat radiation.'

I know that all hot objects emit infra-red radiation.

I know that Infra-red thermometers can be used to detect infra-red radiation.

I know that Infra-red radiation can be used to treat muscle injuries.

I understand how a 'thermogram' picture is produced by using infra-red radiation



I know that thermogram pictures can be used to locate 'hotter' areas by detecting more infra-red radiation coming from places, and how these can be used in many ways (in medicine, rescue, etc.)

I know that microwaves are used to send signals between mobile phones, and in cooking (microwave ovens)



I "may" be able to investigate how good different objects are at absorbing microwaves.

I know that Radio and Television waves are used for communication. (Radio and Television signals)

