Seismic Waves

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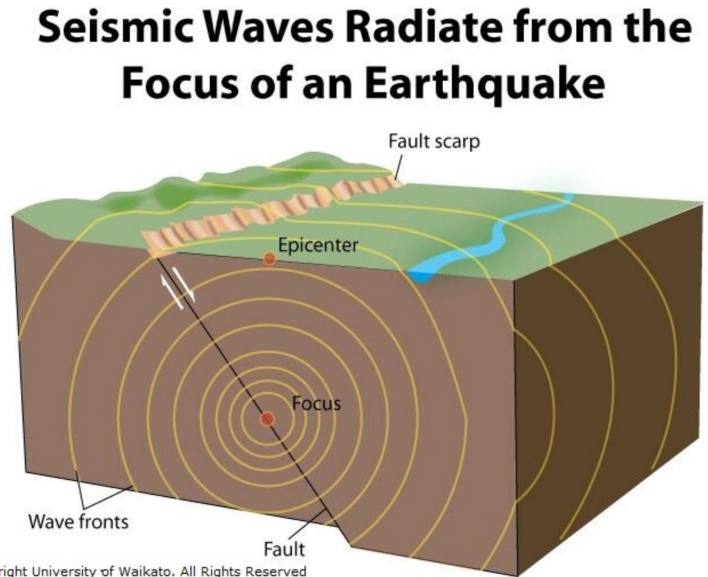
Seismic Waves

Definition of a seismic wave: An elastic wave in the Earth produced by an earthquake or other means, such as volcanoes erupting, moving magma, large landslides and large man made explosions that give out low-frequency acoustic energy.

What the seismic wave does?

It travels out in all directions from the

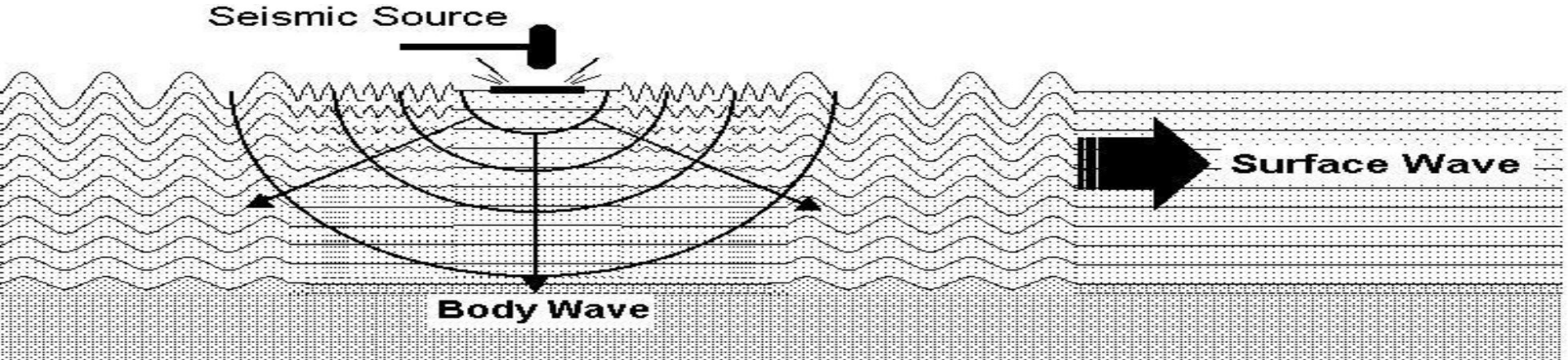
focus through the surrounding rock.



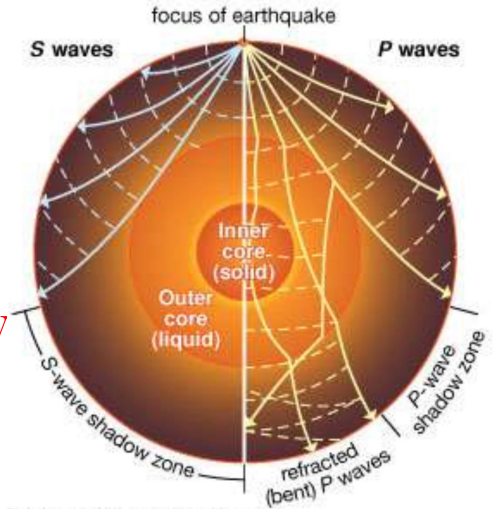
Seismic Waves Continued

Different Kinds of Seismic Waves:

- Body Wave: A seismic wave that travel the body of a medium substance
- Surface Waves: A seismic wave that travels along the surface of a medium substance and has a stronger effect near the surface than the interior



Seismic waves pt.3



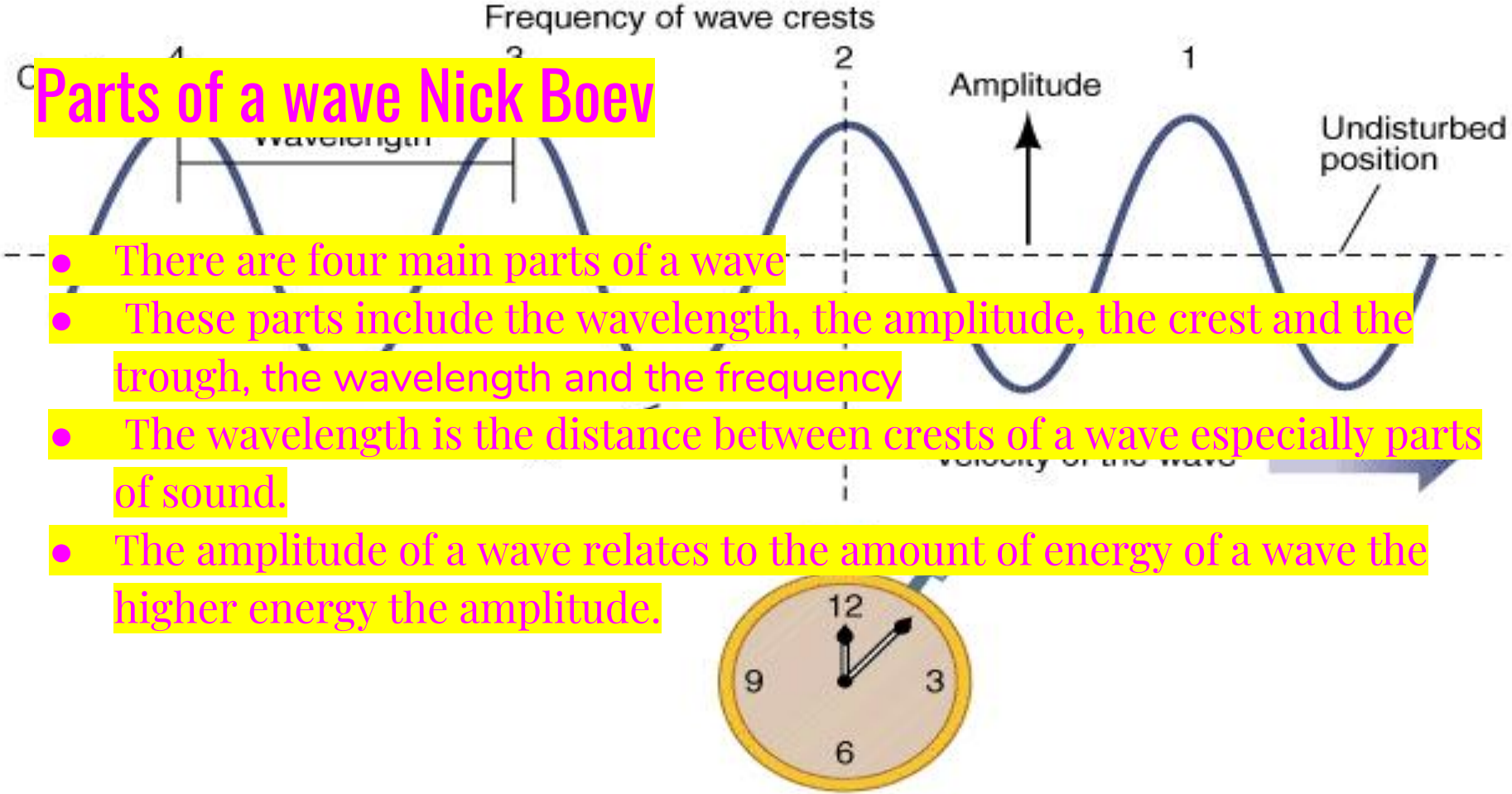
Body Waves: P and S waves are the parts of the body

waves and

P wave: is a primary wave that move back and forth parallel to the direction in which the waves traveling, through Solids, liquids and gasses

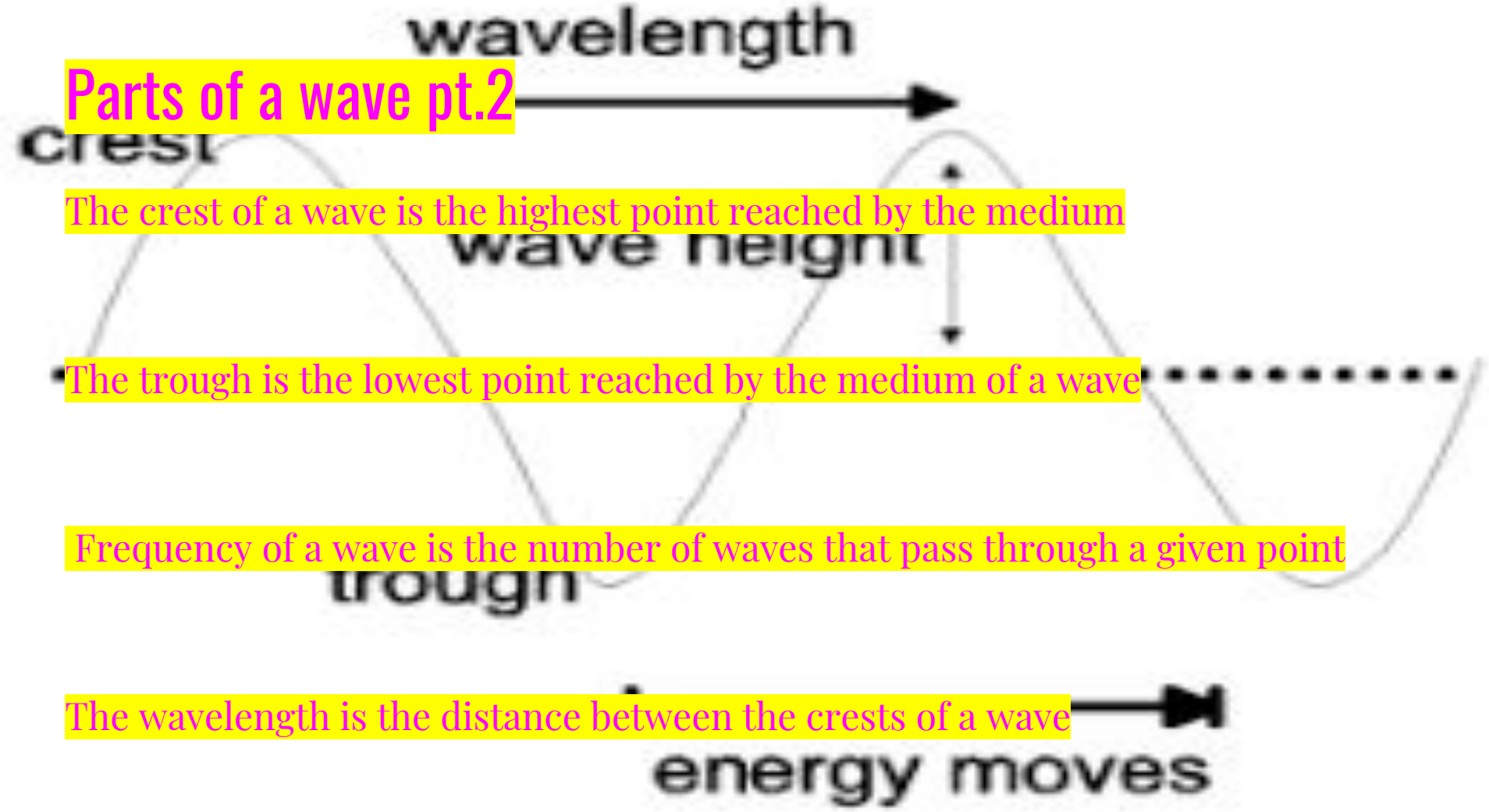
S wave: A shear wave, that causes particles of a rock to move in a side-to-side direction perpendicular to the direction in which the wave is traveling. They are the second fastest wave and can only travel through solids.

Parts of a wave Nick Boev



- There are four main parts of a wave
- These parts include the wavelength, the amplitude, the crest and the trough, the wavelength and the frequency
- The wavelength is the distance between crests of a wave especially parts of sound.
- The amplitude of a wave relates to the amount of energy of a wave the higher energy the amplitude.

Parts of a wave pt.2



The crest of a wave is the highest point reached by the medium

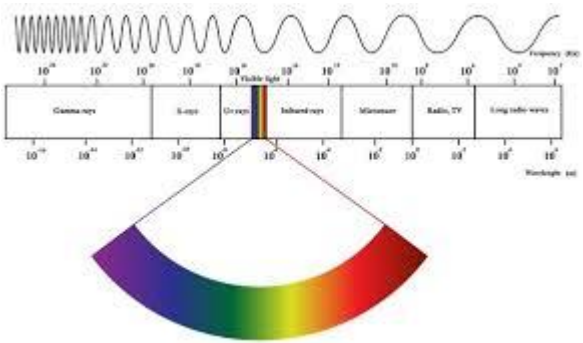
The trough is the lowest point reached by the medium of a wave

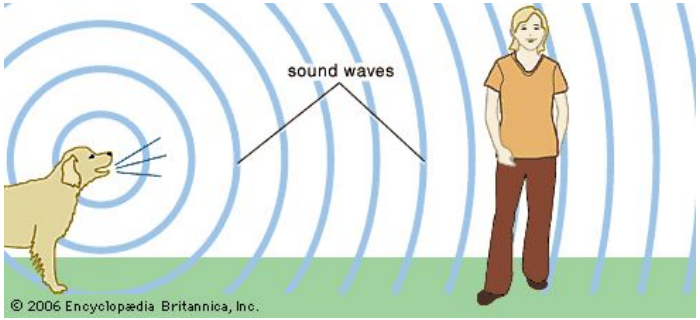
Frequency of a wave is the number of waves that pass through a given point

The wavelength is the distance between the crests of a wave

Other forms of waves in science

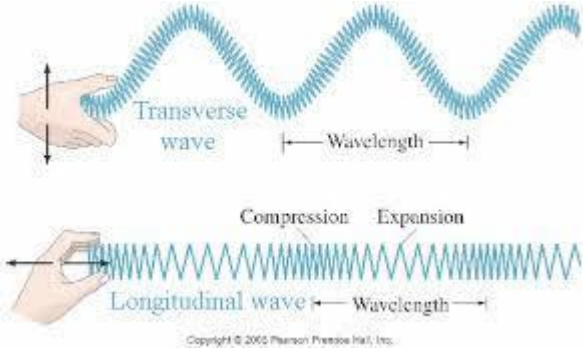
- Sound waves: a wave of compression and rarefaction, by which sound is propagated in an elastic medium such as air.
- Sound waves travel through air. In space there is no air, so sound waves can't travel.
- Electromagnetic waves: One of the waves ha are propagated by simultaneous periodic variations of electric and magnetic field inside and ha include radio waves, infrared, visible light, ultraviolet, X - rays, and gamma rays.
- Only type of wave that can travel through empty space.

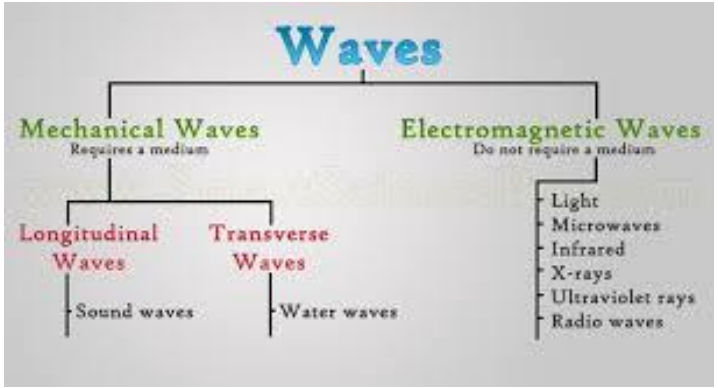




Other forms of waves in science

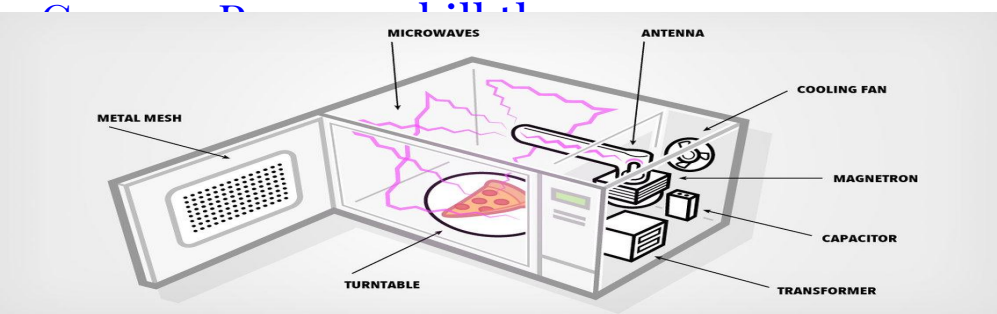
- Mechanical Waves: A wave that is an oscillation of matter, and therefore transfers energy through a medium.
- Longitudinal waves are a type of Mechanical wave that vibrates in the direction of propagation.
- A Transverse wave is a wave vibrating at right angles to the direction of its propagation.
- Types of waves video

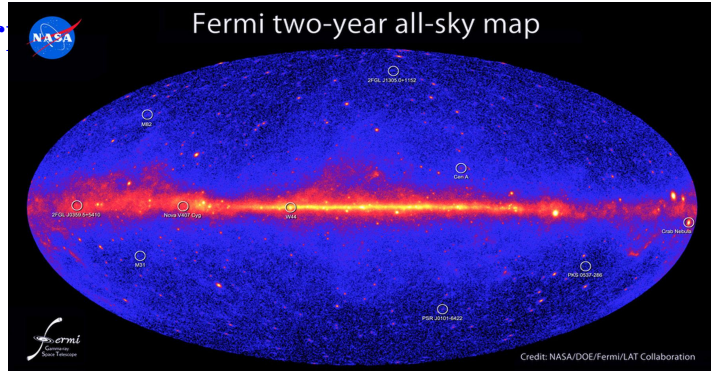




Forms of Electromagnetic waves in Science

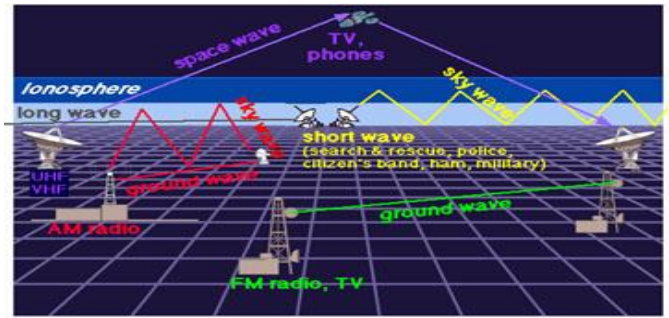
- Microwaves: It is an Electromagnetic wave with a wavelength in the range 0.001-0.3
- Microwaves fall between Infrared Light, but after radio waves. Microwaves cannot pass through solids. That is why they bounce of metal and cook your food
- Gamma wave: penetrating electromagnetic radiation of a kind arising from the radioactive decay of atomic nuclei.
- Gamma Rays are Used in Medicine to Treat inter

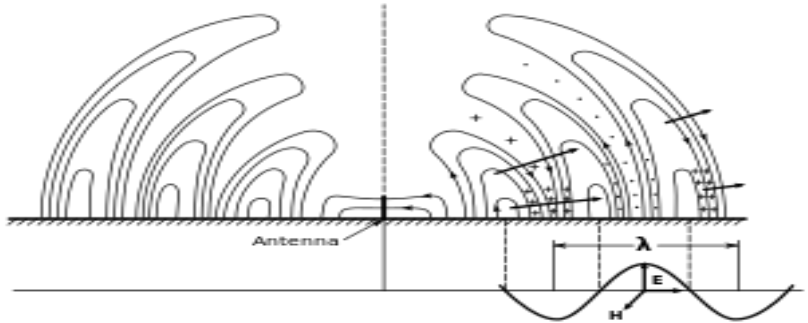




Forms of Electromagnetic waves in Science Pt. 2

- Radio waves: an electromagnetic wave of a frequency between about 104 and 1011 or 1012 Hz, as used for long-distance communication.
- Radio waves are used for Communication, Broadcasting, Radar, and other Navigation systems
- Naturally occurring radio waves are made by Lightning or by Astronomical objects.
- Large doses of radio waves are believed to cause Cancer, Leukaemia. And other disorders.





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