

## What Is the Electromagnetic Spectrum?

Have you ever gone outside after a rain shower and noticed a rainbow in the sky? Maybe you have had an x-ray to see if you had broken a bone. More than likely you have at least watched the television or used a cell phone. What do these all have in common? Well they all involve the electromagnetic spectrum.

The electromagnetic spectrum is a diagram that charts electromagnetic waves.

Electromagnetic waves are waves that can travel through the emptiness of space, at the speed of light.

Seven types of electromagnetic waves are:

1) radio waves 2) microwaves 3) infrared waves, 4) visible light waves, 5) ultraviolet waves, 6) x-rays 7) gamma rays.

## Wavelengths

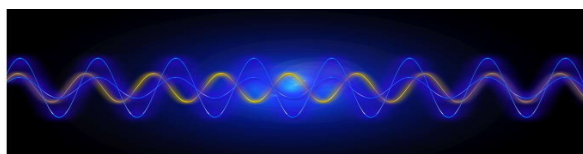


The electromagnetic spectrum takes all the electromagnetic waves and lines them up based on their wavelengths. So what is a wavelength? If you have ever been to the beach and watched the water move, you have seen a wavelength. Electromagnetic waves move similarly to the rising and falling of water waves.

From the top of one wave to the top of the next wave is called a wavelength.

If the wavelength is long, you will experience less waves.

If the wavelength is short or closer together, you will experience more waves.



The electromagnetic spectrum is set up based on wavelengths.

The order is:

