

The Electromagnetic Spectrum

8th Grade

One family of waves, from radio to gamma, and what changes across it.

All of these are the same kind of wave. Only wavelength differs.

Wave	Wavelength	Used for
Radio	longest	broadcasting, wifi
Microwave	long	cooking, phones
Infrared	medium	heat, remote controls
Visible	tiny	the only part we see
Ultraviolet	small	sterilising, sunburn
X-ray	very small	medical imaging
Gamma	smallest	cancer treatment

Shorter wavelength means higher energy. That is why X-rays and gamma rays are dangerous and radio waves are not.