

# The Electromagnetic Spectrum

<https://imagine.gsfc.nasa.gov/science/toolbox/emspectrum1.html>

[https://science.nasa.gov/ems/01\\_intro](https://science.nasa.gov/ems/01_intro)

<https://www.youtube.com/watch?v=HPcAWNIVl-8>

Draw and label the Electromagnetic Spectrum (use the websites above to help you)

\*Include ONE continuous wave with proper wavelengths.

\*Include LABELS for each type of electromagnetic radiation.

## Electromagnetic Spectrum 3- Column T-Chart

**Directions:** Fill in the chart with the information using the different kinds of electromagnetic radiation.

Radiation Type	What produces or uses this type of radiation?	What do you know about this type of radiation?
GAMMA RAYS		
X-RAYS		
ULTRAVIOLET LIGHT		
VISIBLE LIGHT		
INFRARED LIGHT		
MICROWAVES		
RADIO WAVES		

**Matching:** Place the letter and the definition next to the word.

..... <b>RADIO WAVES</b>	<b>A.</b> Helps you change the channels on your TV
..... <b>MICROWAVES</b>	<b>B.</b> Found in space and nuclear explosions
..... <b>INFRARED</b>	<b>C.</b> Used to see your bones
..... <b>VISIBLE LIGHT</b>	<b>D.</b> Used to pop popcorn
..... <b>ULTRAVIOLET</b>	<b>E.</b> When they move from one energy level to the next, they emit electromagnetic radiation
..... <b>X-RAYS</b>	<b>F.</b> Sometimes it behaves like a wave, sometimes like particles
..... <b>GAMMA RAYS</b>	<b>G.</b> Used to transmit radio and television signals as well as cell phone signals
..... <b>ELECTRONS</b>	<b>H.</b> Contains the colors of the rainbow
..... <b>RADIATION</b>	<b>I.</b> Occurs naturally in sunlight; most of it is blocked by the ozone layer

## THINK ABOUT IT

What is the relationship between wavelength and energy in a wave?

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