

13.2: Electromagnetic Spectrum

Partner Lab

Names	Grade Goal
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Introduction

Electromagnetic energy (as learned in chapter 12) comes from electromagnetic waves - also known as light waves. Some light is visible light, but most are undetectable using our eyes alone. All forms of electromagnetic light falls under the electromagnetic spectrum, and have different properties based on their wavelengths (just like sound waves). Below you will learn about the differences between these waves and how they are

Procedure

1. Determine the **range** (min & max) of wavelengths, frequencies, and relative energies for each of the following types of electromagnetic waves. Be sure to include units since some waves can be much larger or smaller than others.

Properties					
Type of Wave	Wavelength Range (Include units)		Frequency Range (Unit: Hz, kHz, GHz, or THz)		Relative Energy (low, med, high)
	Low End of Range	High End of Range	Low End of Range	High End of Range	
Radio Wave					chose option ▾
Microwaves					chose option ▾
Infrared (IR) Waves					chose option ▾
Visible Light					chose option ▾
Ultraviolet (UV) Waves					chose option ▾

X-Rays					chose option ▾
Gamma Waves					chose option ▾

2. Search devices that utilize the different types of electromagnetic waves and what are the purposes of these devices/waves.

Common Uses		
Type of Wave	Device(s) that utilize these types of waves	How do the devices use those waves?
Radio Wave		
Microwaves		
Infrared (IR) Waves		
Visible Light		
Ultraviolet (UV) Waves		
X-Rays		
Gamma Waves		

3. Your group is going to create a Google Slide explaining the different parts of the electromagnetic spectrum. You need to find information about the following types of light.
- Radio, Microwaves, Infrared, Visible Waves, Ultraviolet, X-Rays, Gamma Rays
 - Each slide needs to be in your own words. Plagiarism will not be accepted.
 - The wavelengths of the waves
 - The tools or machines that use those wavelengths.
 - Pictures to keep the slides interesting.

Slideshow of Electromagnetic Spectrum Research