

Name _____ Date _____ Period _____

Electromagnetic Spectrum Worksheet #1

- In each of the following pairs, circle the form of radiation with the **LONGER WAVELENGTH**:
 - red light ~~or~~ blue light
 - infrared radiation ~~or~~ red light
 - microwaves ~~or~~ radio waves
 - gamma rays ~~or~~ UV radiation
- In each of the following pairs, circle the form of radiation with the **GREATER FREQUENCY**:
 - yellow light ~~or~~ green light
 - UV radiation ~~or~~ violet light
 - x-rays ~~or~~ gamma rays
 - AM radio waves ~~or~~ FM radio waves
- In each of the following pairs, circle the form of radiation with the **LOWER ENERGY**:
 - red light ~~or~~ blue light
 - infrared radiation ~~or~~ red light
 - microwaves ~~or~~ radio waves
 - gamma rays ~~or~~ UV radiation
 - yellow light ~~or~~ green light
 - UV radiation ~~or~~ violet light
 - x-rays ~~or~~ gamma rays
 - AM radio waves ~~or~~ FM radio waves
- Springfield's "Classic Rock" radio station broadcasts at a frequency of 102.1 Hz. What is the length of the radio wave in meters?
- A beam of light has a wavelength of 508 nanometers. What is the frequency of the light? What color is the light?
- Blue light has a frequency of 6.95×10^{14} Hertz. Calculate the wavelength of blue light in nanometers.

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