

Name _____

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
 - microwaves **or** radio waves
 - infrared radiation **or** red light
 - 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
 - x-rays **or** gamma rays
 - UV radiation **or** violet light
 - 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
 - microwaves **or** radio waves
 - infrared radiation **or** red light
 - gamma rays **or** UV radiation
 - yellow light **or** green light
 - x-rays **or** gamma rays
 - UV radiation **or** violet light
 - AM radio waves **or** FM radio waves
- Springfield's "Classic Rock" radio station broadcasts at a frequency of 102.1 MHz. What is the length of the radio wave in **meters**?
- A beam of light has a wavelength of 500 nanometers. What is the frequency of the light? What color is the light?
- Blue light has a frequency of 6.44×10^{14} Hertz. Calculate the wavelength of blue light in **nanometers**.