

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  $6.00 \times 10^{14}$  Hertz. Calculate the wavelength of blue light in **nanometers**.