

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 radiowaves
  - 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
  - yellow light or green light
  - UV radiation or violet light
  - microwaves or radiowaves
  - gamma rays or UV radiation
  - 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  $6.95 \times 10^{14}$  Hertz. Calculate the wavelength of blue light in nanometers.

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