

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

### Electromagnetic Spectrum Worksheet #1

1. In each of the following pairs, circle the form of radiation with the LONGER WAVELENGTH:

- a. red light **or** blue light
- b. microwaves **or** radiowaves
- c. infrared radiation **or** red light
- d. gamma rays **or** UV radiation

2. In each of the following pairs, circle the form of radiation with the GREATER FREQUENCY:

- a. yellow light **or** green light
- b. x-rays **or** gamma rays
- c. UV radiation **or** violet light
- d. AM radio waves **or** FM radio waves

3. In each of the following pairs, circle the form of radiation with the LOWER ENERGY:

- a. red light **or** blue light
- b. microwaves **or** radiowaves
- c. infrared radiation **or** red light
- d. gamma rays **or** UV radiation
- e. yellow light **or** green light
- f. x-rays **or** gamma rays
- g. UV radiation **or** violet light
- h. AM radio waves **or** FM radio waves

1. Springfield's "Classic Rock" radio station broadcasts at a frequency of 102.1 Hz. What is the length of the radio wave **in meters**?
2. A beam of light has a wavelength of 506 nanometers. What is the frequency of the light? What color is the light?
3. Blue light has a frequency of  $6.98 \times 10^{14}$  Hertz. Calculate the wavelength of blue light **in nanometers**.

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

### Electromagnetic Spectrum Worksheet #1

1. In each of the following pairs, circle the form of radiation with the LONGER WAVELENGTH:

- a. red light **or** blue light
- b. microwaves **or** radiowaves
- c. infrared radiation **or** red light
- d. gamma rays **or** UV radiation

2. In each of the following pairs, circle the form of radiation with the GREATER FREQUENCY:

- a. yellow light **or** green light
- b. x-rays **or** gamma rays
- c. UV radiation **or** violet light
- d. AM radio waves **or** FM radio waves

3. In each of the following pairs, circle the form of radiation with the LOWER ENERGY:

- a. red light **or** blue light
- b. microwaves **or** radiowaves
- c. infrared radiation **or** red light
- d. gamma rays **or** UV radiation
- e. yellow light **or** green light
- f. x-rays **or** gamma rays
- g. UV radiation **or** violet light
- h. AM radio waves **or** FM radio waves

4. Springfield's "Classic Rock" radio station broadcasts at a frequency of 102.1 Hz. What is the length of the radio wave **in meters**?
5. A beam of light has a wavelength of 506 nanometers. What is the frequency of the light? What color is the light?
6. Blue light has a frequency of  $6.98 \times 10^{14}$  Hertz. Calculate the wavelength of blue light **in nanometers**.