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.**

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