

Name: _____

The Electromagnetic Spectrum

Part I:

1. Electromagnetic radiation:
2. Electromagnetic spectrum:
3. Properties of electromagnetic radiation:
4. Wavelength (λ):
5. Frequency (f):
6. Draw a wave and label: one wavelength, crest and trough
7. Draw a second diagram to show a higher frequency wave than the one you drew in question 3.

Part II: Each group will be assigned a part of the EM Spectrum and you will need to research the following information:

1. **Your group's part of the EM Spectrum:** _____
2. Range of wavelengths in units of meters (m):
3. Range of frequencies in units of Hertz (Hz):
4. Describe the uses of your part of the EM Spectrum:

Part III: The groups will be rearranged and each group member will share the information for the part of the EM Spectrum that they researched.

1. **New part of the EM Spectrum:** _____
2. Range of wavelengths in units of meters (m):
3. Range of frequencies in units of Hertz (Hz):
4. Describe the uses of this part of the EM Spectrum:

1. New part of the EM Spectrum: _____

2. Range of wavelengths in units of meters (m):

3. Range of frequencies in units of Hertz (Hz):

4. Describe the uses of this part of the EM Spectrum:

1. New part of the EM Spectrum: _____

2. Range of wavelengths in units of meters (m):

3. Range of frequencies in units of Hertz (Hz):

4. Describe the uses of this part of the EM Spectrum:

Part IV: Answer the following questions:

1. Where does visible light fit in the order for the parts of the EM Spectrum?
2. What would be the wavelength and frequency range for visible light?
3. How does red visible light compare to infrared radiation?
4. How does violet visible light compare to ultraviolet radiation?