

PHYZ SPRINGBOARD: THE EM SPECTRUM



1. Radio Waves

- Frequency range (record without and with the use of scientific notation):
- Wavelength range (in free space). Record the values and name something in the same size range.
 - Longest:
 - Shortest:
- Radio waves can be found/are used for...

2. Microwaves

- Frequency range (record without and with the use of scientific notation):
- Wavelength range (in free space). Record the values and name something in the same size range.
 - Longest:
 - Shortest:
- Microwaves can be found/are used for...

3. Infrared Light

- a. Frequency range (record without and with the use of scientific notation):

- b. Wavelength range (in free space). Record the values and name something in the same size range.
 - i. Longest:

 - ii. Shortest:

- c. Infrared light can be found/is used for...

4. Visible Light

- a. Frequency range (record without and with the use of scientific notation):

- b. Wavelength range (in free space). Record the values and name something in the same size range.
 - i. Longest:

 - ii. Shortest:

- c. Visible light can be found/is used for...

5. Ultraviolet Light

- a. Frequency range (record without and with the use of scientific notation):

- b. Wavelength range (in free space). Record the values and name something in the same size range.
 - i. Longest:

 - ii. Shortest:

- c. Ultraviolet light can be found/is used for...

6. X-Rays

- a. Frequency range (record without and with the use of scientific notation):

- b. Wavelength range (in free space). Record the values and name something in the same size range.
 - i. Longest:

 - ii. Shortest:

- c. X-rays can be found/are used for...

7. Gamma Rays

- a. Frequency range (record without and with the use of scientific notation):

- b. Wavelength range (in free space). Record the values and name something in the same size range.
 - i. Longest:

 - ii. Shortest:

- c. Gamma rays can be found/are used for...

8. What do all electromagnetic waves have in common?