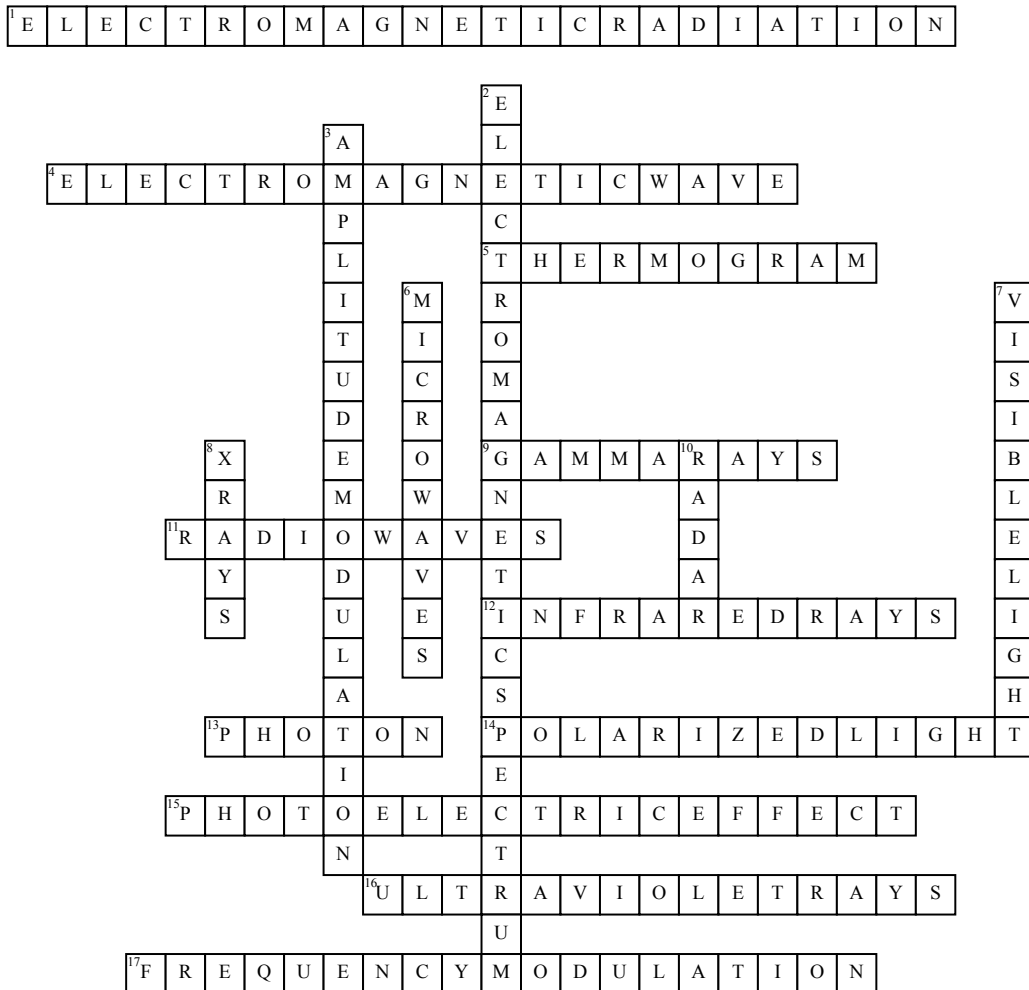


Chapter 5: Electromagnetic Waves



Across

- 1. the energy that electromagnetic waves transfer through matter or space
- 4. a transverse wave that involves the transfer of electric and magnetic energy
- 5. an image that shows regions of different temperatures in different colors
- 9. electromagnetic waves with the shortest wavelengths and the highest frequencies
- 11. electromagnetic waves with the longest wave lengths and lowest frequencies
- 12. electromagnetic waves with wavelengths shorter than those of microwaves

- 13. a packet of light energy
- 14. the light that passes through
- 15. light can cause an electron to move so much it is knocked out of the metal
- 16. electromagnetic waves with wavelengths just shorter than those of visible light
- 17. a method of broadcasting signals by changing the frequency of a wave

Down

- 2. the complete range of electromagnetic waves placed in order of increasing frequency
- 3. a method of broadcasting signals by changing the amplitude of a wave

- 6. shorter wavelengths and higher frequencies
- 7. electromagnetic waves that you can see
- 8. electromagnetic waves with wavelengths just shorter than ultraviolet rays
- 10. uses reflected microwaves to detect objects and measure their distance and speed

Word Bank

- | | | | |
|----------------------|---------------------------|------------------|--------------------------|
| Microwaves | Photon | Ultraviolet rays | Electromagnetic spectrum |
| Infrared Rays | Frequency modulation | Radio waves | Gamma rays |
| Photoelectric effect | Electromagnetic wave | Visible light | X-rays |
| Radar | Electromagnetic radiation | Polarized light | Amplitude modulation |
| thermogram | | | |