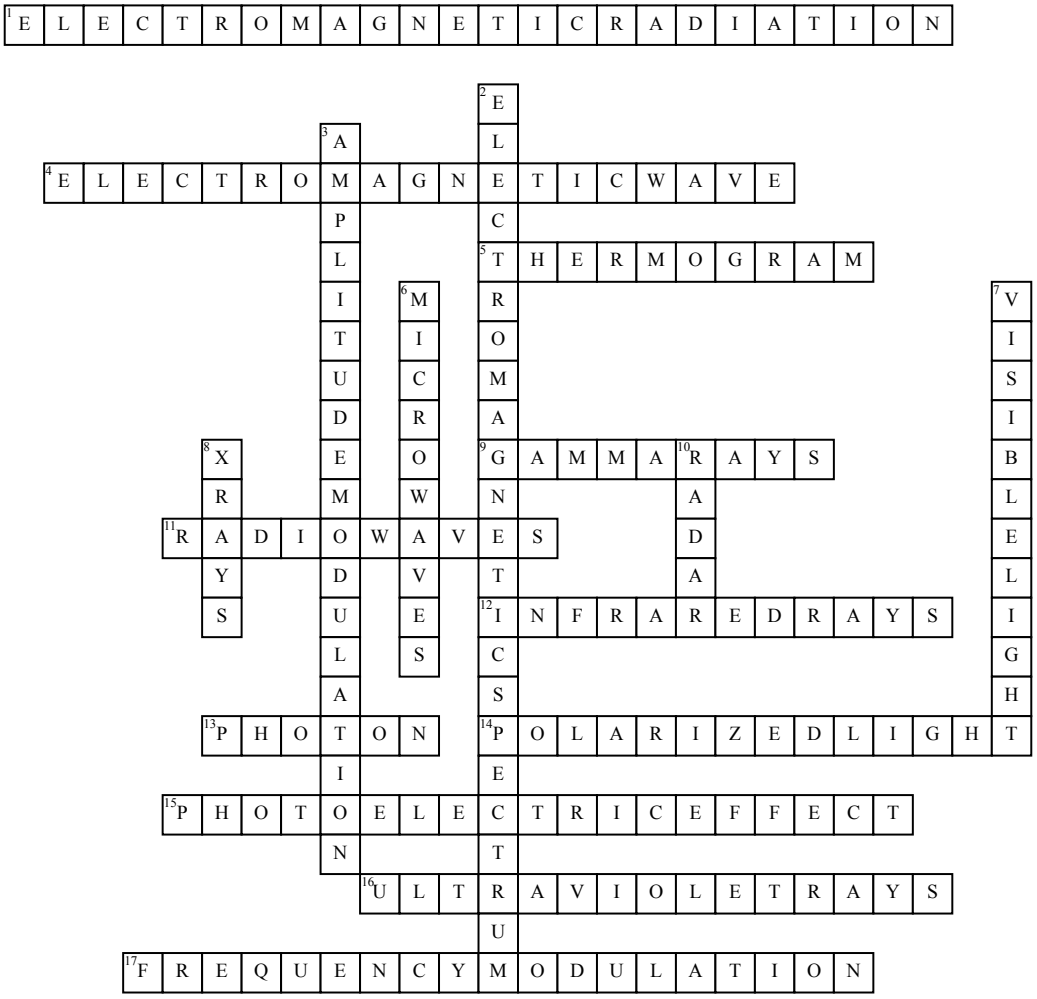
Name: _____ Date: _____ Period: _____

# 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 reigons of different temperatures in different colors
**9.** electromagnetic waves with the shortest wavelengths and the highest frequancies
**11.** elelectromagnetic 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**

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