**Vocabulary:** **Herschel Experiment**



**Vocabulary**

* Electromagnetic radiation – energy made up of electric and magnetic waves that travel at the speed of light in a vacuum.
	+ Examples of electromagnetic radiation include gamma rays, X rays, ultraviolet radiation, visible light, *infrared radiation*, microwaves, and radio waves.
* Infrared radiation – electromagnetic radiation with wavelengths that range from
0.7 μm to 300 μm (700 nm–30,000 nm).
	+ Infrared waves are longer than visible light and shorter than microwaves.
	+ Infrared radiation is felt as heat.



* Prism – an optical device made of clear glass or plastic that is used to divide white light into a spectrum of colors.
	+ Prisms often have triangular bases and rectangular sides.
* Ultraviolet radiation – electromagnetic radiation with wavelengths that range from
0.01 μm to 0.4 μm (10–400 nm).
	+ Ultraviolet waves are longer than X rays and shorter than visible light.
	+ Ultraviolet radiation causes sunburn.
* Visible spectrum – the band of colors produced when white light is passed through a prism or similar device.
	+ The sequence of colors in the visible spectrum is red, orange, yellow, green, blue, and violet. Red light has the longest wavelength, and violet light has the shortest wavelength.
	+ Visible light has wavelengths that range from 0.4 μm to 0.7 μm (400–700 nm).