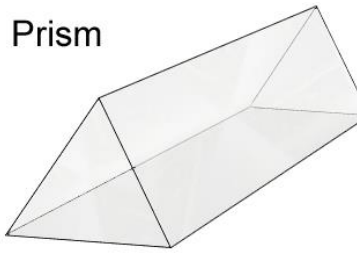
Vocabulary: Herschel Experiment

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).