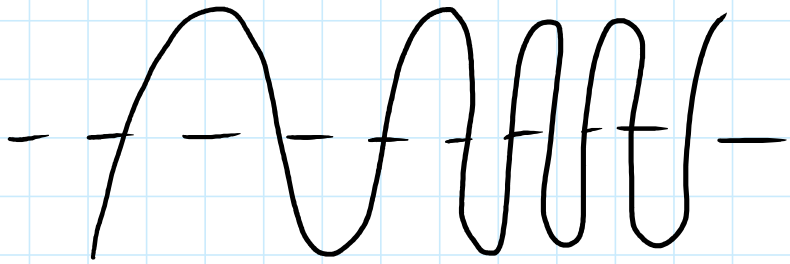
3.2 Models of Electromagnetic Radiation

May 28, 2018 8:49 AM

① Wave Model

- Energy/Light says light has wave like properties



- Newton used a prism to seperate white light into colors.

ROYGBIV - colors of Rainbow

② Ray Model

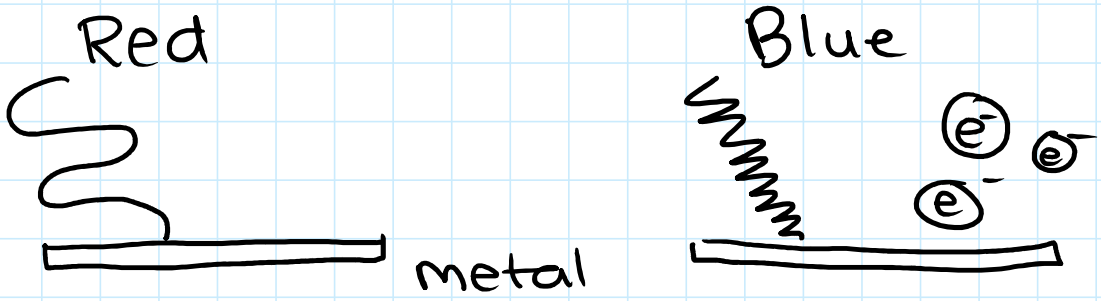
- explains that light travels in straight lines.
- example: shadows!

shadow. light cannot bend around the cone

- discovered by Greek mathematician Euclid

(3) Particle Model

- explains that light/energy travels like particles.
- longer wavelengths (red light) do not give off electrons but shorter wavelengths (blue light) do give off electrons.



- Einstein called particles **PHotons**
  - ★ Photons of RED light (long wavelength) do NOT carry enough energy to get the metal to give off electrons.
  - ★ Photons of BLUE light have a short wavelength and High frequency so they cause electrons to get "knocked" out of the metal.

Homework: Quiz Tomorrow
waves worksheet
Workbook pg 109-114, 117-119