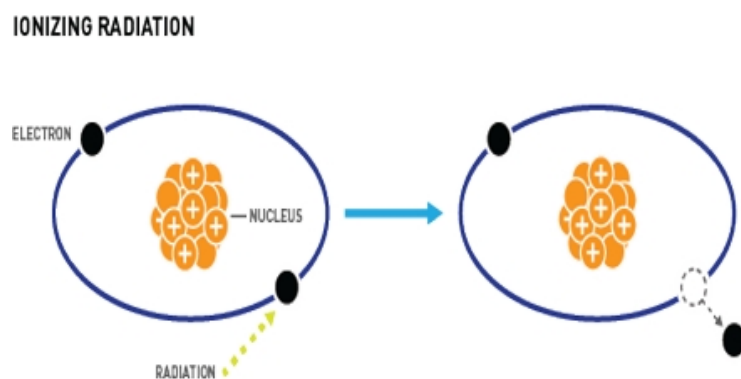


Scientific Notation Review

- If positive exponent -> big number (>1)
 - Frequency = 1×10^6 Hz = 1,000,000 Hz
- If negative exponent -> small number (<1)
 - Wavenength = 3×10^{-7} m = 0.0000003 m

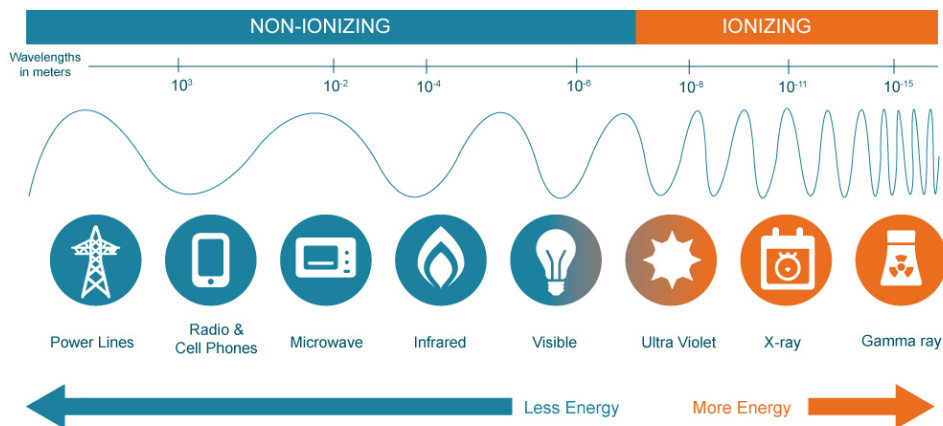
Ionizing vs. Non-Ionizing Radiation

- Ionizing Radiation = Big Frequency, Small Wavelength = **HIGH ENERGY**
 - › Enough energy to ionize (knock loose electrons) of body molecules like DNA (can cause mutations!)
 - UV Rays
 - X Rays
 - Gamma Rays
 - Cosmic Rays



Ionizing vs. Non-Ionizing Radiation

- **Non-Ionizing Radiation** = Small Frequency, Big Wavelength
= **LOW ENERGY**
 - Not enough energy to ionize body molecules like DNA (no mutations)
 - Radio Waves
 - Microwaves
 - Infrared Waves
 - Visible Waves



Scenario: You are a 16 year old girl.

A classmate tells you not to keep your cell phone in your bra because she says it will give you breast cancer.

Response w/ evidence: