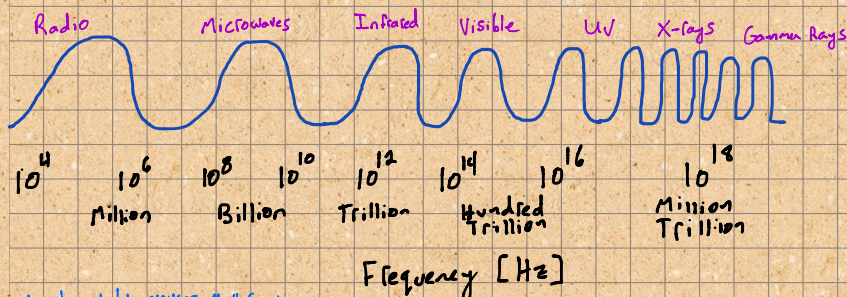


Warm-up:

1. What is an electromagnetic wave?

- Electromagnetic Spectrum: a range of electromagnetic waves [electrons in the form of a wave]



★ When light strikes matter, electrons are forced into vibration

- Transparent: transmits light energy → glass, water, air, etc.
- Opaque: does not allow light to pass through → humans, metal, clothing, etc.

↳ Our atmosphere is transparent to visible and some infrared
↳ Opaque to UV [mostly]

↳ Think about it: Why is glass transparent to visible light but opaque to UV & Infrared?

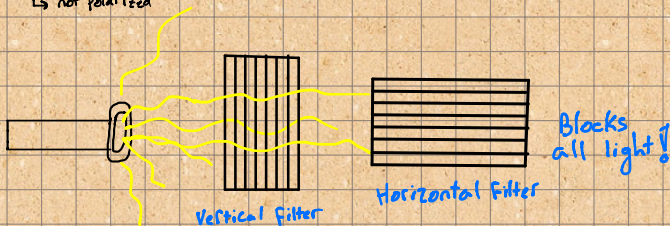
↳ Wavelengths ↓

• Polarization: when waves are confined to a certain plane

↳ light waves are transverse waves

↳ Incandescent/Fluorescent bulbs/the sun all emit light in all directions

↳ not polarized



• Polarizing sunglasses only permit vertically aligned light

• 3D movies use polarized light

↳ each side has opposite filters

