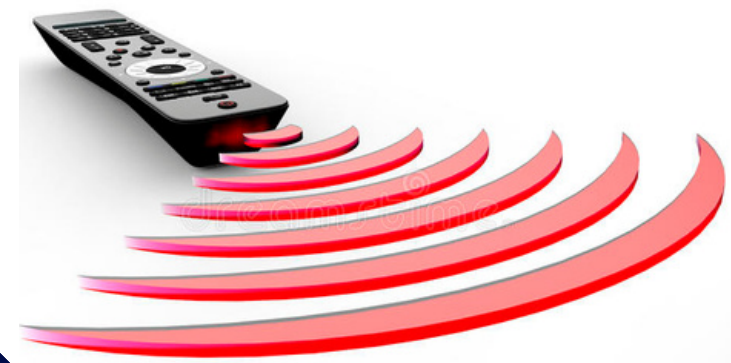




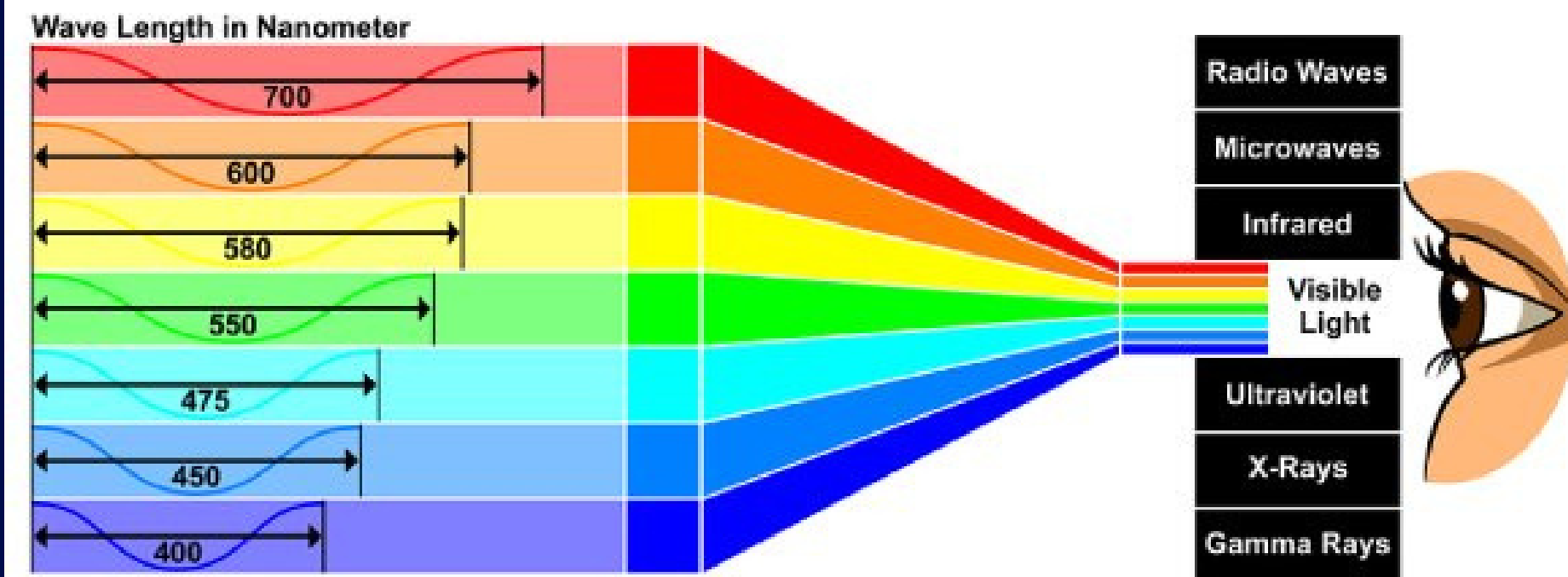
INFRARED WAVES

PRESENTATION



Wavelength : 780nm-1mm

Frequency : 10^{12} - 10^{14} Hz



- The infrared waves band lies adjacent to the low frequency end of visible spectrum.
- Infrared waves are produced by hot bodies and molecules.
- Infrared waves are referred to as heat waves. Because water molecules present in most materials readily absorb infrared waves. (CO_2 , NH_3 , also absorb.)
- After Absorption, Thermal motion increases (They heated up and heat their surroundings.)

IMPORTANCE

- Plays a major role in maintaining earth's average temperature through green house effect (incoming visible light is absorbed by earth's surface and radiated as infrared radiation. This radiation is trapped by green house gases like CO₂, water vapour.)

APPLICATION

- Infrared lamps in physical therapy.
- Infrared detectors in earth's satellites
- Electric devices
(Semiconductor light emitting diodes).
- TV set, Video Recorder hi-fi system.

THANK YOU !