

Terminology

Light: visible electromagnetic radiation

Electromagnetic Radiation: waves of energy involving electromagnetic fluctuations, travels in photons

Energy: energy per photon

Frequency: how fast the photon vibrates

Wavelength: the distance travelled during one vibration

In the next seven spaces, place the names of the seven different types of electromagnetic radiation IN THE ORDER OF HIGHEST ENERGY TO LOWEST ENERGY. State if the type of electromagnetic radiation is dangerous and provide at least one use.

Gamma Ray: highest energy, very dangerous, gamma ray knife for brain surgery

X-rays: dangerous, X-ray machines

Ultraviolet: dangerous, skin cancer from sun exposure

Visible: not dangerous, good to see with!

Infrared: not dangerous (unless very intense), heat source

Microwaves: not dangerous (except for a few specific frequencies), microwave ovens and communication

Radiowaves: lowest energy, not dangerous, communication

Incandescent Source: produces light through heat

Chemical Source: produces light through chemical change

Electrical Discharge: movement of electrons

Fluorescence: converts light to a different wavelength

Phosphorescence: converts light to a different wavelength slowly

Chemiluminescence: cool chemical reaction

Bioluminescence: chemiluminescence produced in any living thing