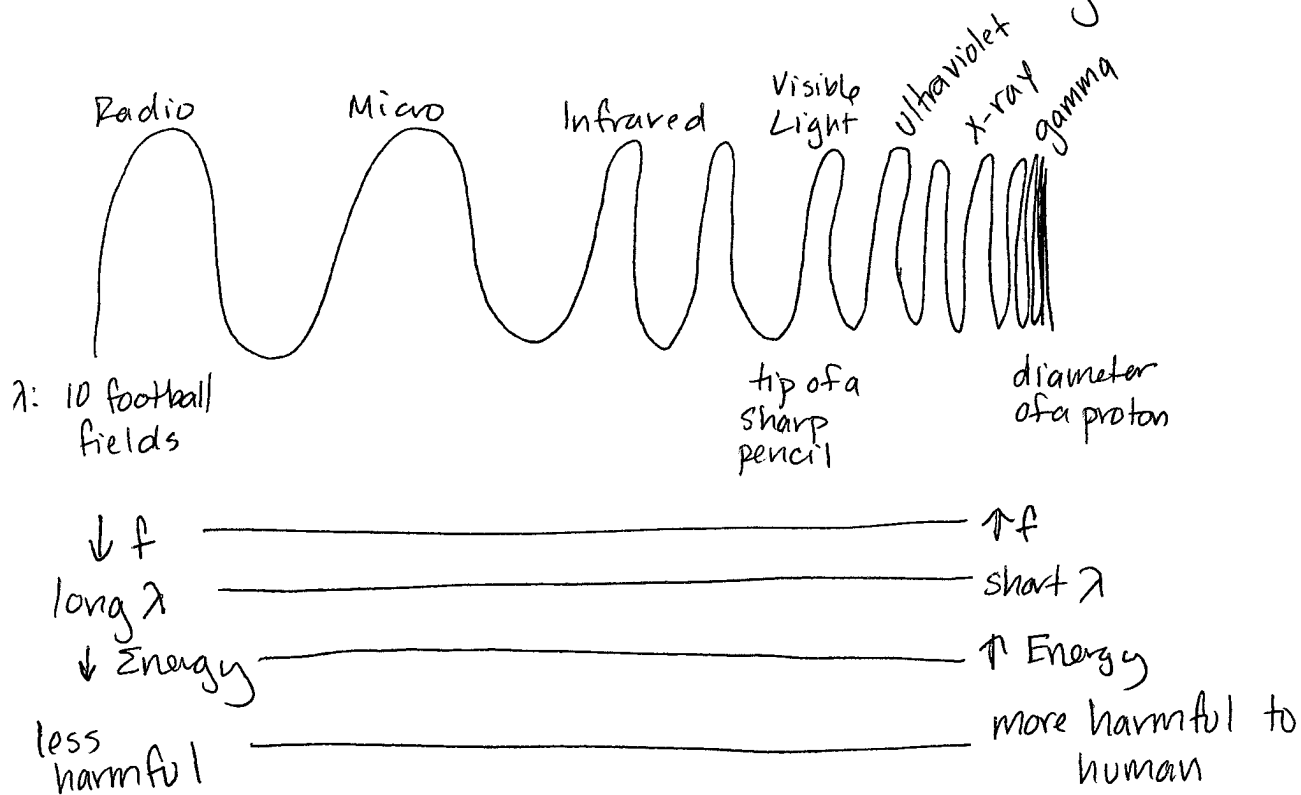


# Electromagnetic Spectrum Notes

## Electromagnetic waves

- formed by vibrating charges
- have both electrical & magnetic field components
- EM waves = radiation = pure energy
- all em waves travel at the speed of light. in a vacuum.
- When EM waves encounter matter they slow down.



All waves travel at  
 $3 \times 10^8 \frac{m}{s}$  or  $300000000 \frac{m}{s}$   
(speed of light)

\* radio waves are not sound waves! Speakers take electromagnetic energy & convert it to sound energy.