

Light

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- Transverse wave - no medium required.
- Electromagnetic waves
 - ↳ all travel at the speed of light.
300,000,000 m/s
 $3.0 \times 10^8 \text{ m/s} = c$
- Light acts like particles and waves
 - ↓
photon
- Light emission
 - ↳ electron going from higher state to lower state gives off energy as a photon.

Electromagnetic spectrum



Radio waves

microwaves

Infrared

Visible

UV

Xray

Gamma

- lowest energy
- lowest frequency
- longest wavelength

- Highest energy
- Highest frequency
- lowest wavelength