

PHYSICS

Unit 6 (Part 2) Topics

EM Waves

- Wave-particle duality
- What is the EM wave made of
- Photon energy
- Speed in vacuum and matter (solid, liquid, and gas)

EM Spectrum

- 7 types of EM waves
- Correct ordering by frequency
- Correct ordering by energy

Reflection

- Diffuse vs. perfect reflection
- Law of Reflection
- Where must you look in a mirror to see a body part
- Left-right reversal
- Reflection of sound waves

Refraction

- Index of refraction
- What causes refraction
- Will light bend toward or away from the normal

Diffraction

- What happens when a wave encounters a small opening or an obstacle
- How the size of the opening affects the amount of diffraction

Lenses

- Converging lenses (convex)
- Diverging lenses (concave)

Visible Light and Color

- Visible light spectrum (ROYGBIV)
- White light
- What gives an object its color (which light is absorbed and which light is reflected)
- Mixing colored light vs. colored paint
- Incandescence

Polarization

- Polarized vs. non-polarized light
- Polarizers