

Light Energy

Chapter 5: Light Energy · Topic 1

Key Concept

Reflection follows specific laws, with the angle of incidence equal to the angle of reflection, used in mirrors and periscopes.

Refraction occurs when light changes speed and bends while passing between different mediums, like from air into glass or water.

Dispersion is the splitting of white light into its component colours (like a rainbow), occurring when light passes through a prism.

Understanding these light phenomena helps explain how eyes, cameras, telescopes, and other optical devices work.

Quick Revision Notes

- Reflection: angle of incidence equals angle of reflection.
- Mirrors and periscopes use reflection.
- Refraction bends light between different mediums.
- This happens between air and water or glass.
- Dispersion splits white light into colours.
- A prism disperses light, like a rainbow.
- This explains eyes, cameras and telescopes.
- Light phenomena are fundamental to optics.

Practice Questions

- 1 Observe reflection using a mirror.
- 2 Put a pencil in water and observe refraction.
- 3 Research how a prism disperses light.
- 4 Explain how a rainbow forms.
- 5 Research how a telescope uses light principles.
- 6 Draw a diagram of light dispersion through a prism.