

Light Energy

Chapter 4: Light Energy · Topic 1

Key Concept

Light travels in straight lines called light rays, which is why shadows form when an object blocks light.

Reflection occurs when light bounces off a surface, like a mirror, following the law that the angle of incidence equals the angle of reflection.

Refraction occurs when light bends as it passes between different mediums, like from air to water, causing objects to appear shifted.

Understanding light helps explain phenomena like shadows, rainbows, and how optical instruments like microscopes and telescopes work.

Quick Revision Notes

- Light travels in straight lines (light rays).
- Shadows form when objects block light.
- Reflection is light bouncing off a surface.
- Angle of incidence equals angle of reflection.
- Refraction is light bending between mediums.
- This causes objects to appear shifted in water.
- Light explains shadows and rainbows.
- It explains microscopes and telescopes too.

Practice Questions

- 1 Observe and draw a shadow.
- 2 Discuss the law of reflection with a mirror example.
- 3 Put a pencil in water and observe refraction.
- 4 Research how a telescope uses light.
- 5 Explain why rainbows form.
- 6 Draw a diagram of light reflecting off a surface.