

# Reflection of Light

Chapter 11: Light: Shadows and Reflections · Topic 2

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## Key Concept

A plane (flat) mirror produces a clear, undistorted image that appears to be the same size as the object and the same distance behind the mirror as the object is in front of it — this image is virtual (cannot be projected onto a screen) and laterally inverted (left and right appear swapped). Rough, uneven surfaces cause diffused reflection, scattering light in many directions, which is why we can see non-shiny objects from many different angles, unlike a mirror's sharp reflection.

## Quick Revision Notes

- Law of reflection: angle of incidence = angle of reflection, measured from the normal.
- A plane mirror forms a virtual, same-size, laterally inverted image.
- Diffused reflection occurs on rough surfaces, scattering light in many directions.
- Diffused reflection lets us see non-shiny objects from many angles.

## Practice Questions

- 1 Draw a ray diagram showing reflection of light off a plane mirror.
- 2 Explain what 'laterally inverted' means using the example of a mirror image.
- 3 Why can we see a piece of paper from many angles, but a mirror only reflects clearly from certain angles?