

Symmetry and Reflection

Chapter 2: Hide and Seek · Topic 1

Key Concept

When we hold an object up to a mirror, the mirror shows its reflection - an exact, flipped copy of the object.

A shape is symmetric if its reflection across a line (the line of symmetry) looks exactly like the original shape.

Reflections flip left and right (or up and down), which is why writing looks backwards when seen in a mirror.

Understanding symmetry and reflection helps us in art, design, and recognising patterns in nature, like butterfly wings or reflections in water.

Quick Revision Notes

- Symmetry means a shape has matching, mirrored halves.
- A mirror shows the reflection of an object.
- A reflection is an exact, flipped copy.
- A shape is symmetric if its reflection matches the original.
- Reflections flip left-right or up-down.
- Writing looks backwards in a mirror due to reflection.
- Symmetry and reflection appear in art and nature.
- Water can create natural reflections.

Practice Questions

- 1 Look at your reflection in a mirror and observe how it flips.
- 2 Draw a shape and its reflection across a line.
- 3 Find a natural reflection, like in water.
- 4 Check if a butterfly design is symmetric using reflection.
- 5 Write your name and see how it looks in a mirror.
- 6 Create an artwork using reflection and symmetry.