

Symmetry

Chapter 7: Symmetry · Topic 1

Key Concept

Line symmetry (or reflective symmetry) occurs when a shape can be folded along a line so both halves match exactly.

The line along which a shape is folded for symmetry is called the line of symmetry, and shapes can have one or more such lines.

Rotational symmetry occurs when a shape looks the same after being rotated by a certain angle less than a full 360° turn.

Symmetry is found in nature, art, and architecture, and understanding it helps us appreciate patterns and design principles.

Quick Revision Notes

- Line symmetry: shape folds to match exactly.
- Fold line = line of symmetry.
- Shapes can have one or more lines.
- Rotational symmetry: looks same after rotation.
- Rotation is less than full 360° turn.
- Symmetry found in nature, art, architecture.
- Understanding it shows patterns.
- It's important in design principles.

Practice Questions

- 1 Draw a shape with one line of symmetry.
- 2 Draw a shape with multiple lines of symmetry.
- 3 Find an example of symmetry in nature.
- 4 Discuss rotational symmetry with an example.
- 5 Fold a paper shape to find its symmetry.
- 6 Draw a shape and mark its line of symmetry.