Completing symmetrical pictures across a mirror line

MODULE 8 · SYMMETRY, LOCATION AND TRANSFORMATION SHAPE & SPACE

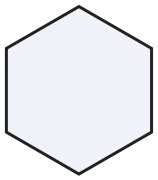
HOW TO ANSWER TODAY

- **Transformations.** Slide without turning → translation. Flip (mirror) → reflection. Turn → rotation.
  Triangle slid left → translation · Letter flipped → reflection
- **Lines of symmetry.** A line of symmetry folds the shape so both halves match. Count every direction that works.
  Square → 4 lines (2 middles + 2 diagonals) · Equilateral triangle → 3

STRETCH PROBLEMS

1. Cian is drawing a homemade Snakes and Ladders board on a sheet of card. He folds the card along the middle and notices that the shape flips across the horizontal line of symmetry. Is this transformation a translation, a reflection or a rotation?

   Name the transformation described: the shape flips across the horizontal line of symmetry. (Choose translation, reflection or rotation.)

2. 

   Cian is helping the caretaker paint a regular hexagon shape on the school field for a PE game. He wants to fold a paper copy of the hexagon along all its lines of symmetry. How many lines of symmetry does a regular hexagon have?