

Rotation of shapes about a point

MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE SHAPE & SPACE

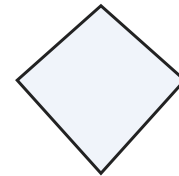
HOW TO ANSWER TODAY

- **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

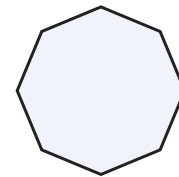
 STRETCH PROBLEMS

- 1** Saoirse is designing a mosaic for the school library wall. She draws a tile pattern, then flips the shape across the vertical line through its centre to make the next tile. Is this transformation a translation, a reflection or a rotation?

- 2** 5th class are designing a class crest for their new Gaelic football jersey. The art teacher sketches the crest in the shape of a kite. How many lines of symmetry does the kite-shaped crest have?



- 3** Tadhg is painting a regular octagon shape onto a banner for the Cumann na mBunscol GAA finals day. He wants to fold the octagon along every line of symmetry to check his design is even. How many lines of symmetry does a regular octagon have?



- 4** Tadhg is painting a butterfly stencil on the side of the new raised bed in the school garden. He notices the butterfly flips across the vertical line through its centre, so the left wing matches the right wing exactly. Is this transformation a translation, a reflection or a rotation?