

Translating shapes on the co-ordinate plane

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

★ STRETCH PROBLEMS

- 1 Saoirse is painting letters on papier-mâché masks for the school play. She paints a letter d on one mask, but when she looks at it in the dressing-room mirror, the letter d looks like a letter b after the move. Is this a translation, a reflection or a rotation?
- 2 Saoirse is painting letters onto papier-mâché masks for the 5th class school play. She paints a letter d on a clear plastic sheet, then flips the sheet over to print it on a mask, and now the letter d looks like a letter b after the move. Is the transformation a translation, a reflection or a rotation?
- 3 In art class, 5th class are making a scale drawing of the school yard. Saoirse draws a shape and its image so that they meet along a fold line and match exactly when the page is folded together. Is the transformation a translation, a reflection or a rotation?
- 4 Mr Ó Briain is marking out the soccer pitch on the school field for 5th class. He says the markings on the far half of the pitch are the same as the near half, but the shape flips across the horizontal line of symmetry running through the centre circle. Is this a translation, a reflection or a rotation?
- 5 Saoirse is decorating the 5th class door for Seachtain na Gaeilge with a paper shamrock. She finds that when the shape turns **180 degrees** around its centre, it fits the outline perfectly. Name the transformation she has used: translation, reflection or rotation?



SHAPE & SPACE