Sliding shapes (translation) on squared paper

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

STRETCH PROBLEMS

1. Aoife is sewing letters onto bunting for the school summer fair. When she stitches a letter d but holds the fabric the wrong way round, the letter d looks like a letter b after the move. Is this transformation a translation, a reflection or a rotation?

   Name the transformation described: the letter d looks like a letter b after the move. (Choose translation, reflection or rotation.)

2. On the school tour map of the Cliffs of Moher visitor centre, the gift shop is marked 3 squares across and 10 squares up from the entrance. Write the gift shop's position on the grid as (across, up).

   On a grid, the house is 3 squares across and 10 squares up. Write its position as (across, up).

3. Cian draws a treasure map on squared paper for a class game. He marks a kite shape that sits 3 squares across and 8 squares up from the corner. Write the kite's position as (across, up).

   On a grid, the kite is 3 squares across and 8 squares up. Write its position as (across, up).

4. Cara is doing a maths investigation using a grid. She marks a tree on the grid 1 square across and 4 squares up. Write the tree's position as (across, up).

5. In the after-school crafts club, Aoife sketches her kite design on a grid. The tip of the kite is 10 squares across and 6 squares up. Write the position of the kite tip as (across, up).

   On a grid, the boat is 10 squares across and 6 squares up. Write its position as (across, up).