

Directions and routes (left/right, forwards/back, N/S/E/W)

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 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).
- 4 Ms Ní Bhriain draws a grid on the whiteboard to show where each act sits in the school music recital programme. The choir's act is marked **10** squares across and **4** squares up from the corner. Write its position as (across, up).
- 5 In 3rd class, Oisín draws a grid map of the school garden to show where each plant pot is for a soil investigation. The pot of cress is **8** squares across and **4** squares up from the corner of the grid. Write the pot's position as (across, up).
On a grid, the boat is 8 squares across and 4 squares up. Write its position as (across, up).