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
- **Quadrants.** Q1 is top-right; numbering goes ANTICLOCKWISE. A point on an axis is on the axis, not in a quadrant.
  (3, 5) → Q1 (−2, 1) → Q2 (0, 4) → on the y-axis

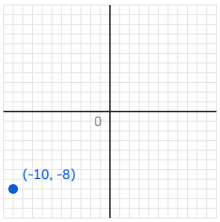
STRETCH PROBLEMS

1. During STEM week, 6th class are building a model bridge. Róisín moves a letter card on the design sheet and the letter d looks like a letter b after the move. Name the transformation. Choose translation, reflection or rotation.

2. On the wall-ball court marked out on the yard, 6th class paint a stencil pattern that repeats across the wall, every motif identical to the next. Name the transformation described: translation, reflection or rotation?

3. Saoirse glances up at the classroom clock near the end of the lesson. The minute hand of a clock sweeps through a quarter turn. Name the transformation: is it a translation, a reflection or a rotation?

4. Saoirse is drawing a map of the school orchard on a coordinate grid. She plots an apple tree at the point (- **10** , - **8**). Which quadrant contains this point?



5. Cian is constructing a den in the school orchard with his class. A wheel spins one full revolution and the spoke marked with chalk returns to its start. Name the transformation described: translation, reflection or rotation?

SHAPE & SPACE