

Location and transformation investigation

WHAT THIS LESSON TEACHES

A reflection flips a shape across a mirror line so it faces the opposite way and stays the same distance from the line. A slide moves a shape to a new grid place without flipping or turning it.

- A shape one square left of the mirror at B has its reflection one square right at C.
- Sliding a shape one square right moves A2 to B2.

MODEL THIS ON THE BOARD

REFLECT A BRICK FOR THE WALL

- 1 The mirror line runs down column B on the building grid.
- 2 Your brick is at **A2**, one square left of the mirror.
- 3 Flip it across the mirror: the partner brick sits one square right at **C2**.
- 4 Both bricks stay the same distance from B and face opposite ways.

DISCUSSION STARTER

REFLECT Do you name the letter or the number first on a grid square? Why does the order matter?

ANSWER KEY

Scaffold: visual check on the page

Q1: C2

Q2: C1

Q3: C3

Q4: C1

Q5: A2

a) **Always** — Reflection always keeps the same distance on the opposite side of the line.

b) **Never** — A slide moves the shape but never flips or turns it.

c) **Always** — Grid references always name the column letter first then the row number.

d) **Never** — Reflection keeps every length the same and only flips the facing.