

## Reflecting a shape across a line

### WHAT THIS LESSON TEACHES

A reflection flips a whole shape over a line, like a mirror image. The shape ends up facing the opposite way but is exactly the same size.

- A pattern-block triangle pointing right is reflected across a vertical line so the matching triangle points left.
- A flag drawn three squares from the line has its reflection drawn three squares from the line on the other side.

### MODEL THIS ON THE BOARD

#### BUILD AND FLIP A SIMPLE FLAG

- 1 Draw a vertical mirror line down the middle of the squared paper.
- 2 Build a flag shape with its nearest corner 3 squares left of the line.
- 3 For every corner, count the same number of squares on the right side of the line.
- 4 Join the new points so the flag now faces the opposite way, still 3 squares from the line.

### DISCUSSION STARTER

**REFLECT** After a reflection, what stays the same about the shape and what changes?

### ANSWER KEY

**Scaffold:** visual check on the page

**Q1:** triangle 2 squares right of the line (flipped)

**a)** Always — Reflection is a flip that keeps every length the same.

**b)** Always — The mirror line reverses the facing direction of the whole shape.

**c)** Always — Distance to the line is preserved on both sides.

**d)** Never — Size never changes in a reflection.