Lesson 86 MIXED

Reflection — reflecting a shape across a line

WHAT THIS LESSON TEACHES

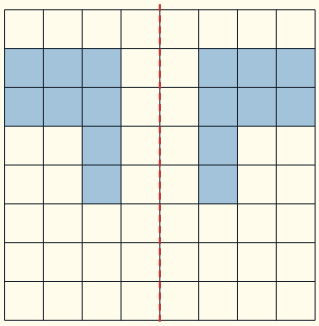
A reflection flips a whole shape across a mirror line so it faces the other way. The shape stays exactly the same size and shape, only turned to face back.

→ A triangle pointing right becomes a triangle pointing left after reflecting across a vertical line.
→ A corner 3 squares from the line has its reflection 3 squares from the line on the other side.

MODEL THIS ON THE BOARD

REFLECTING A FLAG ACROSS A VERTICAL LINE

1. The flag sits to the left of the vertical mirror line.
2. Its top corner is **4** squares from the line, so the matching corner is marked **4** squares to the right.
3. Its pole is **2** squares from the line, so the matching pole is marked **2** squares to the right.
4. Join the new corners; the flag is the same size but now points the opposite way.



DISCUSSION STARTER

REFLECT Does a reflection face the same way as the shape, or the opposite way?

ANSWER KEY

Scaffold: visual check on the page

Q1: 7 squares

Q2: 2 squares and 6 squares right of the line

a) Always — Reflection only flips the shape, it never changes its size.

b) Always — Each corner and its reflection are the same distance from the line.

c) Never — Reflection always flips the shape to face the other way, unlike a slide.

d) Always — A vertical mirror line reverses left and right, so it faces the opposite way.

EXTENSION SHEET · STRETCH ANSWERS

S1: rotation

S2: translation

S3: rotation

S4: rotation

S5: rotation