

Sliding shapes (translation) on squared paper

WHAT THIS LESSON TEACHES

When a shape slides on squared paper, it moves to a new place but keeps facing exactly the same way. It does not turn and it does not flip, and every corner moves the same number of squares in the same direction.

- A chess piece pushed three squares across the board without being spun around.
- If one corner moves 4 squares right, all the corners move 4 squares right.

MODEL THIS ON THE BOARD

SLIDE A GAME TOKEN 2 SQUARES RIGHT

- 1 Draw a small L-shaped token on the squared paper for a board game.
- 2 Mark every corner of the token carefully.
- 3 Move each corner exactly 2 squares to the right, keeping the same up-down position.
- 4 Redraw the token in the new spot. Check it still faces the same way with no turn or flip.

DISCUSSION STARTER

REFLECT How can you tell a slide from a flip or a turn just by looking?

ANSWER KEY

Scaffold: visual check on the page

Q1: Yes

Q2: Yes

Q3: Yes

a) Always — That is the rule of a slide so the shape keeps facing the same way.

b) Never — A slide never turns or flips; the shape must keep facing exactly the same way.

c) Always — Any pure slide, even of 4 squares, leaves the facing unchanged.

d) Always — In a true slide every point of the shape moves identically.

EXTENSION SHEET · STRETCH ANSWERS

S1: (3, 8)

S2: (10, 6)

S3: (10, 4)

S4: (8, 4)

S5: (3, 10)