

Grid references: locating positions on a simple grid

CURRICULUM ALIGNMENT

SHA.SAL.3a

describe, interpret and record directional instructions and location.

INTERACTIVES Grid Reference · challenge, display, explore

WHAT THIS LESSON TEACHES

A grid reference is two numbers that name a point. Count how far **ACROSS** first, then how far **UP**, always starting from the bottom-left corner at (0, 0).

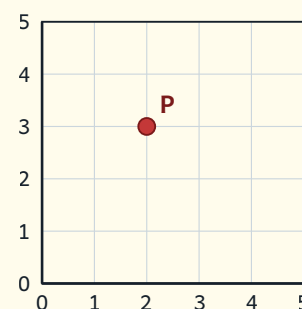
→ The point at (2, 3) is 2 across and 3 up from the corner.

→ (4, 1) and (1, 4) are different points because the order tells you which is which.

MODEL THIS ON THE BOARD

NAMING A GRID POINT

- 1 Start at the bottom-left corner (0, 0).
- 2 Read the first number and go 2 squares across to the right.
- 3 Read the second number and go 3 squares up.
- 4 The point marked P is at (2, 3).



DISCUSSION STARTER

REFLECT

Do you say across first or up first — and why does the order matter?

LESSON ARC

Open with the treasure-map grid on the IWB — letters across the top, numbers down the side — and ask how you'd name the palm tree's square with one letter and one number. Model naming the castle (E4), star (B2) and key (A1), sweeping a finger across then down each time. The class calls references together, then finds squares in Try It Together. Pupils draw a matching 6-by-6 grid in copybook and mark three points. Class Challenge is the whole-class practice, reversing into naming a marked square.

TEACHING MOVES

1. **Getting Started.** Take three hands-up answers, not open call-outs. Listen for pupils who reach for a letter and a number — and quietly note anyone naming them in the wrong order (a number first). Hold that; you'll surface it deliberately in Watch and Notice.
2. **Watch and Notice.** The physical sweep fixes the order: point across the column letters, then run your finger straight down to the row number. Cue the class to call each reference in unison before you confirm aloud. When you reach the star (B2), stress that matching letter and number shows direction, not size — B sends you across, 2 sends you down.

3. **Try It Together.** Pupils take turns at the board finding A3, C1, D5, then the trap square F1. Insist the letter is said before the number every time — the moment someone says '3A', stop and let the class self-correct. Watch pupils count all the way across the columns for F1.
4. **Draw the grid in your copy.** Walk the room glancing at two things only: letters A–F along the top, numbers 1–6 down the side, and each reference written letter-then-number. The copy grid matches the board exactly, so pupils can self-check against the on-screen examples. This is practice, not marking.
5. **Class Challenge.** Keep the board work brisk — pupils take turns, check each answer, class confirms, move on. Don't re-explain each square. If a pupil hesitates on F6 in the far corner, prompt 'start at A and count the columns across first'.
6. **What Did We Notice?.** Ask where '3B' would land you instead of B3. Revoice a clear pupil answer: 'the order tells us which is the column and which is the row — swap them and you find the wrong square.' Display-only discussion; nothing written.

COMMON MISCONCEPTIONS

⚠ A pupil reads the square as '4E' or '3A' — number first, letter second — because they read the row before the column.

Stop the class and do the finger sweep on the IWB: across to the letter, then down to the number. Say 'letter before number — we say E4, never 4E' and have the pupil re-read the square aloud in the right order.

⚠ For the corner squares (A1, F1, F6) pupils miscount — they forget both columns and rows start counting from the edge, or they lose count part-way across a long row.

Model counting the columns out loud from A on the board, tapping each one. For A1, point out the top-left corner is column A, row 1 — the very first of each. For F6, count the full row of columns aloud with the class before placing the marker.

DIFFERENTIATION

EMERGING

- Stay on a 4-by-4 grid (columns A–D, rows 1–4) in copybook while the class draws 6-by-6, so counting to the far column is shorter.
- Give these pupils the letter each time and ask only for the row number, then build up to naming both parts.

DEVELOPING

- After the copybook grid, ask pupils to name every corner square (A1, F1, A6, F6) and describe what the corners have in common.
- Pose a missing-part reference: 'the ship is in row 3 of column D — write its grid reference' to check they assemble letter-then-number themselves.

PROFICIENT

- On the copybook grid, ask pupils to hide a 'treasure' square, write clue references for its four neighbours (the squares above, below, left and right), and explain which letter or number changes each time — then pull ahead into the Student Activity Book page.

✂ **Cross-curricular:** Tie to Geography — pupils use grid references to locate a county or landmark on a squared Ireland map, reading column letter then row number.

ANSWER KEY

Scaffold: visual check on the page

Q1: (4, 2)

Q2: 4 across and 6 up

Q3: (5, 5)

Q4: (5, 4)

Spot: Sophie swapped the order. Across comes first, then up, so the correct reference is (4, 2).

EXTENSION SHEET · STRETCH ANSWERS

S1: (10, 6)

S2: (3, 10)

S3: (6, 2)

S4: (4, 6)

S5: (8, 4)