

The + sign: the joining sign

CURRICULUM ALIGNMENT

ALG.EXP.2 interpret the meaning of symbols or pictures in number sentences.

INTERACTIVES Ten Frame · challenge, display, explore

WHAT THIS LESSON TEACHES

The + sign is the joining sign. It says 'and' or 'plus' and joins two numbers into one maths story.

→ $3 + 2$ means three and two more.

→ $4 + 4$ is a plus story that builds eight counters on the ten-frame.

MODEL THIS ON THE BOARD

WRITING A PLUS STORY

- 1 Start with the first part already known: **3**.
- 2 Draw the joining sign carefully as two crossed arms to make a clean +.
- 3 Write the second part after the sign: **2**.
- 4 Read the full plus story as three plus two, or three and two more: **$3 + 2$** .

LESSON ARC

Open with a giant + card and take three hands-up sightings, steering talk toward joining. On the ten-frame interactive, model $3 + 2$, $4 + 4$ and $5 + 1$ in two colours, reading each story as 'plus' and 'and' while writing it under the frame. Pupils take turns building red-then-yellow parts; the class choral-reads before yellow goes on. Copybook moment forms a clean + in $3 + 2$ and $4 + 1$. Class Challenge runs four brisk board builds with check-as-you-go. Student Activity Book page 14 is the desk hand-off.

TEACHING MOVES

1. **Getting Started.** Hold up a large + card (or draw one big). Take three hands-up answers only—no open call-outs. Accept shop signs, books or number sentences, then land on: 'it joins two numbers into one story.'
2. **Watch and Notice.** On the ten-frame interactive, build $3 + 2$ (three red, two yellow), then $4 + 4$, then $5 + 1$. Point and lead the choral read each time: '3 plus 2 — 3 and 2 more.' Write the plus story under the frame before you move on so every pupil hears + as both 'plus' and 'and'.
3. **Try It Together.** Invite one pupil up per story ($2 + 3$, $4 + 2$, $6 + 3$, $5 + 4$). They place red for the first number, pause for the class to read '___ plus ___', then yellow for the second. If someone floods the whole frame, stop and rebuild part by part.
4. **Write the plus sign in your copy.** Model on the board first: two straight arms crossing cleanly—not a wonky x. Pupils write $3 + 2$ and $4 + 1$ in their maths copy. Walk the row watching the + formation only; this is practice, not marking.
5. **Class Challenge.** Keep four core turns brisk: pupil builds red then yellow, hits Check, class reads the full plus story and agrees. After Check ask once: 'which part did you build first?' Then move on—no re-teach between turns.

6. **What Did We Notice?** Ask what the + sign tells us to do. Listen for 'joins', 'and' or 'plus'. Revoice: 'so the plus sign joins two numbers into one maths story.' If a pupil says 'it means the answer', steer gently: + joins; a different sign shows the answer.

COMMON MISCONCEPTIONS

⚠ A pupil says the + sign 'means the answer' or treats it like equals.

Revoice at the frame: '+ joins the two parts into one story—the answer comes later with a different sign.' Point at the red and yellow groups still sitting side by side as one joined story.

⚠ A pupil fills the whole ten-frame with one colour instead of matching the two numbers in the plus story.

Freeze the board. Clear the extras and rebuild aloud: 'first number in red—stop. Second number in yellow—stop.' Have the class count each colour before the choral read.

⚠ Pupils draw the + as a slanted x or a single stroke when writing in their copy.

Stop at the board and redraw slowly: one straight arm across, one straight arm down, meeting in the middle. Have the class air-trace once, then rewrite the two copybook stories.

DIFFERENTIATION

EMERGING

- Teacher places the red counters for the first number; the pupil only adds the yellow second number, then joins the choral read.
- Stay on stories within five ($2 + 1$, $3 + 2$, $4 + 1$) while the class meets larger totals.

DEVELOPING

- After a correct build, cover one colour and ask: 'how many are hiding—and what is the plus story?'
- Swap the order of a known story ($3 + 2$ becomes $2 + 3$) and ask whether the joined total still matches the frame.

PROFICIENT

- Narrate a stretch at the IWB: 'build a plus story that uses every cell on the ten-frame—tell us both parts before you place.'
- Early finishers start Student Activity Book page 14 and write one extra plus story of their own under the page.

✓ **Cross-curricular:** Link to English oral language—pupils join two short classroom lists with 'and', then say the matching plus story.

ANSWER KEY

Your turn · Write the plus story. A) $1 + 5$ B) $2 + 7$ C) $3 + 6$

Your turn · Colour the frame. Write how many. 8

Is it right? · $7 + 1$ makes 8. tick · $7 + 1$ makes 7. cross

Star challenge · Write the plus story. $5 + 5$

EXTENSION SHEET · STRETCH ANSWERS

S1: $6 + 3$

S3: 10

S2: $5 + 4$ makes 9

S4: any pair that makes 7, such as $3 + 4$