

Pictograms: one symbol means one

CURRICULUM ALIGNMENT

DAT.DAT.3

pose questions of interest and collect, display and critically analyse data in a range of ways for a range of purposes and communicate the findings.

INTERACTIVES [Pictogram Builder · challenge, display, explore](#)

WHAT THIS LESSON TEACHES

A pictogram shows counts with pictures or symbols where one symbol means one item. Each row starts at the same edge so you can compare lengths fairly by counting the symbols.

→ A row of five little cat pictures shows five cats.

→ Six fish pictures in a row means six fish.

MODEL THIS ON THE BOARD

PETS PICTOGRAM ROW

- 1 Read the count of dogs: five.
- 2 Start at the left edge of the row.
- 3 Draw one dog symbol for each dog until you have 5 matching symbols.
- 4 Write the total 5 at the end of the row.
- 5 Check that every symbol is the same size.

DISCUSSION STARTER

REFLECT How do you find 'how many more' on a pictogram without counting every symbol twice?

LESSON ARC

Open with a frequency table of class pets — five dogs, three cats, six fish, no rabbits — and ask what to draw for one cat. On the IWB, build each row of the pictogram-symbols interactive one picture per pet, finger-tracing the left edge so every row starts in line. Pupils predict each row's count aloud, then draw one row of their own in their copy. The Class Challenge builds tidy rows for 4, 7, 9 and 12.

TEACHING MOVES

1. **Getting Started.** Take two or three hands-up answers, not call-outs, and steer to 'one picture for each one' — that's the whole lesson. If time, do a quick show of hands for one pet so the counts are genuinely the room's.
2. **Watch and Notice.** Build each row one at a time on the pictogram-symbols interactive, counting aloud as you place — 'one, two, three, four, five'. Pause on the empty rabbit row: 'zero is still a real count, the row stays.' Then run a finger along the left edge to show every row starts at the same line.
3. **Try It Together.** Call one pupil per row to the board. Before each builds, ask the watching pupils to predict how many symbols that row needs. Watch for two slips — symbols drifting to different sizes, and a row starting further along than the one above; re-voice 'each picture is one, so count the pictures.'
4. **Draw a Row in Your Copy.** Pupils draw one row using their own simple symbol — a dot, tick or small star — and write the count at the end. Walk the room glancing for roughly even-sized symbols and a count that matches the number drawn. No marking.

5. **Class Challenge.** Brisk turns at the board for 4, 7, 9, 12. For each, take a predicted count aloud from the watching class, then a pupil builds and presses Check. Keep returning to 'what keeps your symbols lined up so the rows are fair?' — and watch the 12-row doesn't drift past the right edge.
6. **What Did We Notice?** Ask why every symbol must be the same size and the rows must start in line. Re-voice a strong answer: 'so if one row started further along, a smaller count could trick us into thinking it was bigger.'

COMMON MISCONCEPTIONS

⚠ A pupil points to the fish row and says it's the most 'because it's the longest', even when you've quietly drawn the cat symbols bigger and spread out.

Stop and place an uneven cat row directly under the fish row on the interactive — fewer fish but a longer-looking cat row. 'Longest isn't always most — only when the pictures are the same size and lined up.' Then re-count both rows by symbol.

⚠ Pupils leave the rabbit row out entirely because nobody has a rabbit — they treat zero as 'nothing to draw, so nothing to show'.

Keep the empty rabbit row on the board with its label and zero symbols. 'Zero is a real count — the row still belongs so the chart is complete.' Flag this once more in the summary if any copy left it off.

DIFFERENTIATION

EMERGING

- Stay with the small counts — dog (5) and cat (3) — and let the pupil build only those rows on the interactive while the class moves to fish and the Class Challenge.
- In the copy row, pre-draw faint guide dashes at the left edge so the pupil only places symbols, not the line-up.

DEVELOPING

- After their copy row, give a second target with the count missing — draw seven symbols, then ask the pupil to write what the count must be.
- Ask: if you had to add a row for 8 birds, where would it have to start, and how would you check it lines up with the others?

PROFICIENT

- During the Class Challenge, narrate a harder variant aloud: 'show 12, but only five symbols will fit before the edge — what would you change so it still reads fairly?' This previews one-symbol-means-many without naming it.
- Pull them ahead into the Student Activity Book page to start reading finished pictograms — which is most, which is least, how many altogether.

✂ **Cross-curricular:** Tie to Geography — survey how each pupil travels to school (walk, cycle, car, bus) and build a class travel pictogram, one symbol per pupil.

ANSWER KEY

Scaffold: visual check on the page

Q1: 3

Q2: 4

Q3: 7

a) **Always** : The lesson rule is one symbol means one.

b) **Always** : Rows that start in line let you compare lengths fairly.

c) **Never** : All symbols must be the same size to keep the chart fair.

d) **Sometimes** : It only looks longer if the start lines are not aligned.

EXTENSION SHEET · STRETCH ANSWERS

S1: 15

S2: 8

S3: 14