

Ordering numbers to 20

CURRICULUM ALIGNMENT

NUM.NCT.2

demonstrate proficiency in using and applying different counting strategies.

INTERACTIVES **Drag Sort** · challenge, display, explore

WHAT THIS LESSON TEACHES

To order numbers to 20 from smallest to largest, put the least number first, then each next number that is more than the one before it.

→ 8, 11, 14, 17 is ordered smallest to largest.

→ In 16, 7, 12, 19 the smallest is 7, so it goes first.

MODEL THIS ON THE BOARD

GAA RACE BIBS LINE UP

- 1 The four race bibs are pinned as 14, 8, 17 and 11.
- 2 Find the smallest bib first: **8** goes at the front.
- 3 Next is **11**, because 11 is more than 8.
- 4 Then comes **14**, because 14 is more than 11.
- 5 Last is **17**, because 17 is more than 14.
- 6 The finished line from smallest to largest is 8, 11, 14, 17.

LESSON ARC

Open with four race bibs pinned up jumbled — 14, 8, 17, 11 — and give quiet think-time on who stands where with the smallest bib first. Do not order them yet. Walk three worked sets on the digit-cards interactive: find the smallest card first, then the next, until the line climbs; read each finished line aloud. Pupils take turns ordering 6, 14, 9, 18 together at the board, then rewrite 16, 7, 12, 19 in copybooks. Class Challenge runs three brisk practice sets before the maths-talk wrap.

TEACHING MOVES

1. **Getting Started.** Pin the four bibs up out of order and hold the board still. Give five seconds of quiet think-time before any hands. Take three answers but do not drag the cards into place yet — leave the puzzle live for Watch and Notice.
2. **Watch and Notice.** On each set, ask which card goes first and why before revealing. Watch for the little 2 hiding beside 11 and 20 — hold out until someone spots it. On the close cluster 13, 15, 14, have the class compare 14 and 15 before the middle card lands. After every line, read it aloud together so the class hears each number is more than the one before.
3. **Try It Together.** Board loads 6, 14, 9, 18. Before the first card moves, ask which one goes first and why. One pupil drags; the class agrees or corrects out loud. After the line is ready, read it aloud and check each number is more than the one before. Rotate four pupils; reset the same set rather than inventing a new one.
4. **Order four numbers in your copy.** Give a moment to settle, then walk the row glancing for 7 first and 19 last. This is whole-class copybook practice, not marking — catch reversed lines quietly and point back to 'smallest first'.

5. **Class Challenge.** Keep the board work brisk. On each set ask which card goes first before anyone drags. On the last set (14, 16, 15, 13) pause so the class compares pairs before the middle cards land. Check each answer as you go; do not re-teach the rule.
6. **What Did We Notice?.** Ask: when the line is in order, what is true about each number and the one before it? Listen for 'more than' or 'climbs'. Re-voice: every step along the ordered line is a jump up the numbers. Head off 'they just look neat' — push for the more-than idea.

COMMON MISCONCEPTIONS

⚠ Pupils miss the small number hiding beside bigger ones — in 11, 20, 2 they start with 11 and leave 2 till last.

Freeze the board on the jumbled set. Ask 'is there any card smaller than 11?' and wait until someone points at 2. Rebuild smallest-first from that card.

⚠ On a close cluster like 13, 15, 14, pupils swap the middle cards because the numbers 'look the same size'.

Stop the drag. Compare one pair at a time out loud: 14 or 15 — which is more? Then 13 or 14. Only after the pairs are settled does the middle card land.

⚠ Pupils say the finished line is right 'because it looks neat' without checking that each number is more than the one before.

Have the class read the line aloud and, after every number, ask 'is that more than the one before it?' Re-voice the climbs idea until the more-than check is automatic.

DIFFERENTIATION

EMERGING

- Stay with three-card sets on the IWB (drop the fourth) so pupils only hunt smallest, middle, largest.
- Pre-underline the smallest card in the copybook set so they only order the remaining three.

DEVELOPING

- After the copybook line, ask them to point to any two neighbouring numbers and say how they know the second is more.
- On the close Class Challenge set, have them justify each pair comparison out loud before the card lands.

PROFICIENT

- Once their copybook line is done, ask: cover one number — can you still prove the line climbs from the three you can see?
- Give a five-card stretch on paper from the same 1–20 range and ask them to write the ordered line, then explain one close pair.

✚ **Cross-curricular:** Keep the sports-day bib hook live — order real PE race bibs or lane numbers from smallest to largest before a yard relay.

ANSWER KEY

Your turn · Write them smallest to biggest. A) 4, 9, 16 B) 2, 8, 15, 19

Your turn · Ring the bigger number. A) ring 12 B) ring 19

Is it right? · Smallest to biggest. tick · 11 is bigger than 15. cross

Star challenge · Write them smallest to biggest. 15, 16, 18, 20

EXTENSION SHEET · STRETCH ANSWERS

S1: 54, 60, 65, 74

S3: 12, 35, 39

S2: 28, 55, 88, 96

S4: 37, 68, 99