

Comparing numbers to 99: the tens decide first

CURRICULUM ALIGNMENT

NUM.PVT.2a

understand that digits have different values depending on their place or position in a number.

INTERACTIVES

Place Value Blocks (Dienes) · display

Drag Sort · challenge

WHAT THIS LESSON TEACHES

When you compare two two-digit numbers, look at the tens digit first. The number with more tens is the bigger number.

→ 51 is more than 47 because 5 tens beat 4 tens, even though 47 has more units.

→ 36 and 32 both have 3 tens, so the units decide: 6 is more than 2, so 36 is bigger.

MODEL THIS ON THE BOARD

DARA AND ELLA GATHER CONKERS

- 1 Dara gathered 47 conkers and Ella gathered 51 conkers.
- 2 Look at the tens first: 47 has 4 tens and 51 has 5 tens.
- 3 5 tens beat 4 tens, so 51 is bigger than 47.
- 4 Ella has more conkers.

LESSON ARC

Open with Dara's 47 conkers and Ella's 51 — five seconds of quiet think-time, then three answers. Build both numbers with tens rods and unit cubes on the interactive; force the tens count before naming the bigger number. Move to a same-tens pair (36 and 32) so units break the tie. Pupils sort pairs at the board in Try It Together, then circle bigger numbers in copybook. Class Challenge keeps the practice brisk. Student Activity Book follows What's Next.

TEACHING MOVES

1. **Getting Started.** Pose 47 vs 51 conkers and give five full seconds of silent think-time before hands. Take three answers only. Note anyone who already names the tens, but do not force that language yet — the rods will lock it in next.
2. **Watch and Notice.** Build 47 then 51 with tens rods and unit cubes. Ask which has more tens before anyone names the bigger number. Revoice: 'five tens beat four tens, so 51 is more.' Then show 36 and 32; tens match, so point at the units: 'same tens, so the units decide.' If time, flash 29 against 92 and hold: which place is doing the heavy lifting?
3. **Try It Together.** Pupils take turns sorting one pair at a time into More and Fewer. Before each sort, ask the class: 'tens the same, or tens different?' On 29 and 92, pause on the swapped places. Rotate four pupils; keep the rest watching the tens column, not calling the answer early.
4. **Circle the bigger number.** Whole-class copybook — not marking. Pupils write each pair, circle the bigger number, and underline the place that decided. Walk the row for clear circles on 52, then 44, then 83. If someone circles the smaller, whisper 'check the tens' and move on.
5. **Class Challenge.** Brisk board practice: pupils take turns sorting 34/29, 56/58, 81/79, then 63/36. Check each answer with the class before moving on — do not re-teach. Watch for pupils who always pick the number with more units; on 63 vs 36 the place of the 6 is the whole point.

6. What Did We Notice?. Ask why we check tens before units. Listen for ‘tens are worth more’ or ‘five tens beat four tens no matter what the units do.’ Revoice: ‘the tens place does the heavy lifting, so we look there first.’ If someone only talks units, point back to 47 and 51.

COMMON MISCONCEPTIONS

⚠ Pupils always pick the number with more units — so 29 beats 34 because 9 is bigger than 4.

Stop and rebuild both with rods. Count the tens rods first out loud: three tens vs two tens. ‘Units only matter when the tens match.’

⚠ Pupils treat 63 and 36 as the same because the digits match, or pick 36 because the 6 ‘looks first’.

Place a 6-tens rod beside six unit cubes. Same digit, very different value. Ask: ‘is the 6 doing tens work or units work?’

⚠ On a tens-tie like 56 and 58, pupils freeze or guess instead of switching to units.

Cover the tens digits on the board so only the units show. ‘Tens already matched — now which units digit wins?’

DIFFERENTIATION

EMERGING

- Stay on pairs where the tens clearly differ (34 vs 29, 81 vs 79) and pre-build both numbers with rods so pupils only count tens rods.
- On the copybook pairs, underline the tens digit for them before they circle — they decide from a marked place.

DEVELOPING

- After the copybook three, add 70 vs 68 and ask them to say the deciding place in a full sentence before circling.
- On 56 vs 58, cover the answer and ask: ‘if I change 58 to 51, who wins now — and why did the winner flip?’

PROFICIENT

- Stretch on the board with a three-number sort: put 47, 74, and 44 into order and underline the place that settled each comparison.
- Pose: ‘write two different two-digit numbers that use the digits 3 and 8 — which is bigger and by how many tens?’ Copybook response, not a new interactive.

✓ **Cross-curricular:** Tie to PE scores — two teams on 47 and 51 points; who leads, and which place decided it?

ANSWER KEY

Scaffold: visual check on the page

Q1: Ella (42)

Q2: thrush (52)

Q3: 44

Q4: meadow (83)

a) Always : The lesson rule is to look at tens first every time.

b) Sometimes : Units only decide when the tens are the same.

c) Always : 5 tens beat 4 tens so 51 is more.

d) Never : 6 tens make 63 much bigger than 3 tens.

EXTENSION SHEET · STRETCH ANSWERS

S1: 34, 55, 79, 84

S2: 28, 88, 96

S3: 34, 79, 84

S4: 54, 84, 85