Lesson 1 NUMBER

Place value to 100 — tens and units (re-anchor)

CURRICULUM ALIGNMENT

NUM.PVT.3 explore equivalent numerical expressions of numbers using the base ten system.

INTERACTIVES Place Value Blocks (Dienes) · challenge, display, explore

LESSON ARC

Open by writing the actual class count on the board and splitting it into tens and units aloud. Bring up the place-value-blocks interactive and walk 24, 40 and 7 one at a time, pointing to each column — the empty units column on 40 is the pivot. Pupils take turns building called numbers on the T/U mat, then sketch four numbers into labelled columns in their copy. The Student Activity Book consolidates building and reading two-digit numbers at the seats.

TEACHING MOVES

1. **Getting Started.** Take exactly three hands-up answers, not open call-outs, then write the real class count on the board. Read it aloud as the split — e.g. '27 is two tens and seven units' — and stop there; the columns get built properly next.
2. **Watch and Notice.** Point to each column on the place-value-blocks interactive as you read. On 40, pause before revealing and ask 'what's in the units column?' — the zero holding the place is the whole point of this beat. On 7, stress that the tens column can sit empty too.
3. **Try It Together.** Send a pupil up to build each called number — ten-rods first, then single cubes. Before they confirm, ask the class 'how many tens, how many units?' so they commit out loud. Watch for the pupil dropping single cubes into the tens column — that's the slip to catch here.
4. **Sketch the Columns in Your Copy.** While pupils draw their T and U columns, walk the room glancing for column alignment and a clear empty units column on 40. No scores — this is practice, not marking.
5. **Class Challenge.** Keep the board work brisk — one pupil builds each of 30, 47, 80, 99 while the rest predict. 30 and 80 catch the empty-units slip; 99 is the ceiling. Confirm each before moving on rather than re-explaining the rule each time.
6. **What Did We Notice?.** Hold up the 4 in 24 against the 4 in 40 and ask why the same digit is worth different amounts. Re-voice a strong answer: 'the 4 in 40 is worth forty because it sits in the tens column.'

COMMON MISCONCEPTIONS

⚠ Asked to build 40, a pupil drags in four ten-rods and then adds a single cube or two, or leaves the units column looking 'unfinished' and tries to fill it.

Stop and point at the empty units column on the interactive. 'Nothing in units means zero units — the zero is holding the place so the 4 stays in the tens column.' Rebuild 40 and 4 side by side so the class sees the difference the empty column makes.

⚠ A pupil reads any 4 as 'four', so the 4 in 40 and the 4 in 24 sound the same to them — they're reading the face value, not the column.

Build both on the place-value mat together: four ten-rods versus four cubes. Have the pupil count the rods in tens — 'ten, twenty, thirty, forty' — so they hear the 4 in 40 land on forty.

⚠ At the board, a pupil drops the single cubes into the tens column (or rods into units), reversing the place-value mat.

Pause before they read it back and ask the class to check left and right: 'rods on the left in tens, cubes on the right in units.' Let them slide the blocks to the correct column rather than clearing and restarting.

DIFFERENTIATION

EMERGING

- Stay with numbers that have units in both columns (24, 56) before introducing the empty-column cases — build 40 only with heavy teacher support at the board.
- Pre-label the T and U headings in their copy so pupils only place the digits, not draw and name the structure.

DEVELOPING

- After they sketch the four numbers, ask them to write the value of each digit beside it — the 4 in 86 is worth 'four', the 8 is worth 'eighty'.
- Hand them a missing-number line on the mat: 'six tens and ? units make 64' — what goes in units?

PROFICIENT

- Pose: 'I built a number with five blocks in total and it's bigger than 40 — what could it be?' Let pupils find more than one answer and explain each in tens and units in their copy.
- Pull them ahead into the Student Activity Book page while the class finishes the Class Challenge.

↗ **Cross-curricular:** Tie to PE — count the class into teams and write each team's headcount on the board as tens and units.

ANSWER KEY

a) Each digit sits in its own column; line them up on the right.

b) A digit's value = the digit × its column.

c) Largest: biggest digit on the left; smallest: smallest non-zero digit on the left.

Q1: 249, 565, 570

Q2: 4,000 (4 thousands)

Q3: 3,772 = 3,000 + 700 + 70 + 2

Q4: 2486, 2963, 7553, 7628

EXTENSION SHEET · STRETCH ANSWERS

S1: 2 (2 ones)

S2: 299, 695, 967