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 asking how many pupils are in the room today, then read a suggested two-digit number aloud as so-many-tens-and-so-many-units. Move to the place-value-blocks interactive and narrate 24, 40, 7 and 86 — tens column first, then units, flagging the empty columns. Pupils take turns building numbers at the board, then sketch T and U columns in their copy for 24, 40, 7 and 86. Class Challenge builds 30, 47, 80, 99 together.

TEACHING MOVES

1. **Getting Started.** Give five seconds of quiet think-time before any hands go up, then take exactly three hands-up answers — no open call-outs. Write each two-digit number and read it aloud the long way: 'twenty-four is two tens and four units.'
2. **Watch and Notice.** On the place-value-blocks interactive, narrate each example tens-column-first, then units. On 40, pause for two or three hands before confirming, and point hard at the empty units column; on 7, point at the empty tens column. The empty columns are the whole point — don't rush past them.
3. **Try It Together.** Call a number under 100, send one pupil up to build it on the interactive, then ask the room 'how many tens and how many units?' before confirming. Rotate four pupils; between turns revoice an answer back ('so two tens and four units is twenty-four') to keep the watchers thinking.
4. **Sketch the Columns in Your Copy.** Walk the room glancing at the column labels and whether the 7 lands in units with nothing in tens. This is whole-class copybook practice, not marking — a quick glance per pupil, not a correction.
5. **Class Challenge.** Brisk board work — ask 'how many tens and how many units?' before each build, confirm, move on. Watch 99 closely: have the class count the nine rods aloud in tens (10, 20, 30…) so nobody loses count. Don't re-explain place value here — this is consolidation.
6. **What Did We Notice?.** Ask why the 4 in 47 and the 4 in 74 aren't worth the same. Listen for pupils naming the position as what decides value. Revoice a strong answer: 'same digit, different place, different value.'

COMMON MISCONCEPTIONS

⚠ Asked to build 24, a pupil makes four ten-rods and two cubes — they grab blocks in the order they hear the digits and ignore which column comes first.

Stop and ask 'which column do we read first, left or right?' Rebuild left-to-right: two ten-rods in tens, then four cubes in units. Point at the T and U labels as you place each.

⚠ A pupil reads 7 or 40 as needing 'something' in the empty column and tries to fill it, or says a two-digit number is always bigger than a one-digit one because it 'has more.'

Show 7 with an empty tens column on the interactive and say the empty column still holds a place — it just holds zero tens. For 40, point to the empty units column: no cubes, but the four tens still make forty.

DIFFERENTIATION

EMERGING

- Stay with numbers under 30 when this pupil's turn comes at the board, so the rod count stays small and countable.
- Pre-label the T and U columns on the interactive (or call them out as the pupil builds) so they place blocks rather than invent the structure.

DEVELOPING

- After the copybook sketch, ask: what's the biggest two-digit number you can build, and how many of each block does it take?
- Swap the digits — if 47 is four tens and seven units, what is 74? Build both side by side and compare.

PROFICIENT

- During Class Challenge, narrate a harder variant for fast finishers: 'I have six tens and no units — what number, and how many cubes would I add to reach 65?' Keep them building in their head while the board works.
- Pose: explain to someone in 1st class why the 4 in 47 isn't the same as the 4 in 74, using only the words tens and units.

↗ **Cross-curricular:** Tie to the data strand — pupils count items in two classroom collections (e.g. crayons, books) and write each tally as so many 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: 2 (2 ones)

Q2: 299, 695, 967

Q3: 2486, 2963, 7553, 7628

Q4: 3,772 = 3,000 + 700 + 70 + 2

EXTENSION SHEET · STRETCH ANSWERS

S1: 249, 565, 570

S2: 4,000 (4 thousands)