

# Place value to 1,000 – the hundreds column

## 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 with hands-up real-world numbers slotted into a three-column frame on the IWB. Then trade ten ten-rods for one hundred-flat on the place-value-blocks interactive – the new column opening to the left is the pivot. Build 234, 305, 470 reading each column aloud, lingering on holding zeros. Pupils write 234, 305, 470 into a pre-drawn H/T/U table in their copybooks, then the Class Challenge bank consolidates the tricky-zero cases.

## TEACHING MOVES

- Getting Started.** Take three hands-up numbers, not open call-outs – jersey numbers and bus routes work well. Slot each into a quick three-column frame on the IWB as the class watches, but don't name the hundreds column yet; this is a preview, not the teach.
- Watch and Notice.** On the trade to 100, drag the ten ten-rods together one at a time and pause: 'ten tens – what do they make?' before the hundred-flat appears. On 305, point to the empty tens column and say 'the zero holds this column open so the 3 stays in the hundreds.' Don't rush the zeros – that's where the slips live.
- Try It Together.** One pupil builds each called number (216, 408, 530, 705) from the empty mat while the room reads it back column by column. Listen for pupils reading the hundreds digit as 'two' rather than 'two hundred' – re-voice it correctly before moving on.
- Sketch the Columns in Your Copy.** Hand out a pre-drawn H/T/U table so the slot is spent writing, not ruling lines. Walk the room glancing at the empty columns – check the zero is actually written in 305 and 470, not left blank. No marking; this is whole-class practice.
- Class Challenge.** Brisk turns at the board through 162, 308, 450, 909. Before each build, ask the class to predict the tricky spot – 'where's the holding zero in 308?' Use the Check button as part of the narration and keep moving; don't re-teach each one.
- What Did We Notice?.** Hold up the 3 in 305 against the 3 in 530. Ask 'same digit – same value?' and wait. Re-voice a strong answer: 'three hundreds here, three tens there – the column decides, not the digit.'

## COMMON MISCONCEPTIONS

⚠ A pupil builds 234 correctly but reads it as 'two, three, four' or 'two and thirty-four' – treating the hundreds digit as a bare 2.

Point to the two hundred-flats on the mat and ask 'how much is sitting in that column?' – push for 'two hundred'. Have the pupil read all three columns again as hundreds, tens, units.

⚠ A pupil leaves the empty column blank instead of writing the holding zero – writes 35 for 305, or 47 for 470.

Build 305 and 35 side by side with the blocks so the class sees they're wildly different amounts. 'The zero holds the tens column open so the 3 stays in the hundreds.' Have them rewrite it into the H/T/U table with the column visibly empty but the 0 written.

## DIFFERENTIATION

### EMERGING

- Keep these pupils on no-zero numbers (216, 234) at the board and in the copybook table while the rest tackle the holding-zero cases.
- Build the number on the interactive first, then have the pupil copy the filled mat into their pre-drawn H/T/U table digit by digit.

### DEVELOPING

- After the copybook three, give one more with two zeros — 600 or 200 — and ask which columns the zeros are holding.
- Ask them to read 909 aloud and then say what would change if the middle 0 became a 5.

### PROFICIENT

- Pose: using the digits 3, 0 and 5 only, how many different three-digit numbers can you build, and which is biggest? Ask them to explain why the position of the 0 changes the value, then pull them ahead into the Student Activity Book page.

➤ **Cross-curricular:** Link to Geography — pupils find three-digit road numbers (the N307, the R450) on a local map and read each one column by column.

## ANSWER KEY

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

b) A digit's value = the digit  $\times$  its column.

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

Q1: 299, 695, 967

Q2: 2 (2 ones)

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

Q4: 2486, 2963, 7553, 7628

## EXTENSION SHEET · STRETCH ANSWERS

S1: 249, 565, 570

S2: 4,000 (4 thousands)