

Sixteen, seventeen and eighteen

CURRICULUM ALIGNMENT

NUM.PVT.2a

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

INTERACTIVES Ten Frame · challenge, display, explore

WHAT THIS LESSON TEACHES

Sixteen, seventeen and eighteen each have one full ten and some extras. 16 is ten and six, 17 is ten and seven, and 18 is ten and eight.

→ Ten and six makes 16.

→ One full ten-frame plus eight counters is 18.

MODEL THIS ON THE BOARD

MIA'S SKIPPING COUNT

- 1 Mia counted **17** skips before the rope caught.
- 2 A full ten is **10** skips.
- 3 Cover the full ten and count the extras: there are **7**.
- 4 Ten and **7** makes **17**.

LESSON ARC

Open with Mia's 17 skips and five seconds of quiet think-time — listen for “seven past ten,” not a count from one. On the ten-frames interactive, cover the full first frame with your hand and revoice ten-and-six, ten-and-seven, ten-and-eight. Pupils take turns building 16, 17 and 18 at the board while the class chants the stem together. One careful copybook line of the three numerals, then brisk Class Challenge builds. Hand off to the Student Activity Book after the one-minute recap.

TEACHING MOVES

1. **Getting Started.** Show Mia's skip count and give five silent seconds. Take three hands-up answers. Push past “seventeen” toward “seven past ten” — that is the structure the lesson hangs on.
2. **Watch and Notice.** On each snapshot, cover the full first ten-frame with your hand so only the extras show. Revoice slowly: ten and six makes sixteen — same stem for seventeen and eighteen. Pause so pupils see the full ten never changes.
3. **Try It Together.** Call 16, then 17, then 18. Rotate four pupils at the board; after each build the whole class says ten and ____ makes _____. Freeze anyone who starts the second frame before the first is full and rebuild together.
4. **Write 16, 17 and 18 in your copy.** Pupils write 16, 17 and 18 in one careful line. Walk the row watching digit order — the 1 for the ten comes first on every number. Whole-class practice, not marking.
5. **Class Challenge.** Run the three core items briskly: show 16, show 18, then make 17 from a locked full ten. Pupils build, class confirms, move on. On the last item ask which part is the same and which is different — revoice anyone who names only the extras.

6. What Did We Notice?. Ask whether covering the full ten and counting extras is quicker than counting every counter from one. Revoice: so we keep the ten and only count the extras. Head off anyone still wanting to count all eighteen.

COMMON MISCONCEPTIONS

⚠ Pupils count every counter from one instead of holding the full ten and naming only the extras. Cover the full first frame with your hand again. Ask: how many are hiding under my hand? How many can you still see? Revoice ten and seven makes seventeen.

⚠ Pupils start filling the second ten-frame before the first frame is full — they treat the two frames as one long row. Stop the build. Point to the empty slots on the first frame: this ten has to be full before any extras go beside it. Rebuild 16 together, first frame locked full.

⚠ Pupils write 61 for sixteen — they reverse the digits and put the extras first. At the copybook walk-round, point back to the frames: the full ten is the left frame, so the 1 is written first. Have the pupil rewrite 16, 17, 18 saying ‘ten first’ each time.

DIFFERENTIATION

EMERGING

- Stay on 16 only at the board until the pupil can fill the first frame completely before placing any extras.
- During the copybook line, dot the tens place lightly so pupils only form the extras digit themselves.

DEVELOPING

- After a correct build, cover the full ten and ask the pupil to name the number from the extras alone before the class chants.
- On the locked-ten Class Challenge item, ask: if I add one more extra, what number do we have now — and what stayed the same?

PROFICIENT

- Ask: without touching the board, how many extras would nineteen need, and how do you know from the pattern of 16, 17 and 18?
- After Class Challenge, send them into the Student Activity Book page while the class finishes the last board item.

✍ **Cross-curricular:** Return to PE skipping — count a full ten skips, then call only the extras to reach 16, 17 or 18.

ANSWER KEY

Your turn · Write ten and how many more. A) 10 and 7 make 17 B) 10 and 8 make 18

Your turn · Draw the counters. A) draw 16 B) draw 17

Is it right? · That is 14. tick · That is 5. cross

Star challenge · Draw the counters. draw 18

EXTENSION SHEET · STRETCH ANSWERS

S1: 7

S3: 7

S2: 8

S4: 4