

Taking from the teens: counting back within 20

CURRICULUM ALIGNMENT

NUM.OPS.2

select, make use of and represent a range of addition and subtraction strategies.

INTERACTIVES **Number Line Jumps** · challenge, display, explore

WHAT THIS LESSON TEACHES

To take away from a teen number, stand on the start and jump back one step at a time on the number line until the take-away is done. The first number you say is one less than the start.

→ $16 - 3$: stand on 16, then jump 15, 14, 13.

→ $18 - 2$ lands on 16; both start and landing stay past ten.

MODEL THIS ON THE BOARD

TAKING 3 FROM 16 ON THE LINE

- 1 Stand on **16** and stay there (do not say it as a jump).
- 2 First jump back lands on **15**.
- 3 Second jump back lands on **14**.
- 4 Third jump back lands on **13**.
- 5 So $16 - 3$ equals 13.

LESSON ARC

Open with the PE-basket hook: sixteen beanbags, three out to the yard — five seconds of quiet guess-time, then leave it open. Model three take-aways on the number-line interactive, finger fixed on the start while the class hears only the landings. Pupils take turns jumping $15-3$, $17-2$, $16-4$ and $19-3$ while the class counts each landing aloud. One copybook sentence locks the notation, then Class Challenge runs four more facts with a check after each. Maths-talk compares $16-3$ with $6-3$ before the three Key Takeaways.

TEACHING MOVES

1. **Getting Started.** Show the PE-basket image and read the story once. Give five full seconds of silent think-time before any hands. Take three whispered estimates only, then park the answer — the number line will settle it.
2. **Watch and Notice.** On the number-line interactive, stand a finger on 16 and keep it there. Count three landings only: 15, 14, 13. Ask: 'Do we say 16 as we jump, or is that where we stand?' If a pupil starts '16, 15, 14', stop and remodel with the finger glued on 16. Repeat with $18-2$ (stays in the teens) and $19-4$, pausing before the last landing so the class predicts 15.
3. **Try It Together.** One pupil works the board; everyone else counts each landing in unison. Run $15-3$, $17-2$, $16-4$, $19-3$. Between facts, reset the start and clear the jumps. Before each one ask: 'Where do we stand first, and which way do the jumps go?' Revoice any start-as-jump slip: 'We stand on it; the first number we say is one less.'
4. **Write the take-away in your copy.** Pupils write $16 - 3 = 13$ once in their maths copy. Walk the row checking the minus and equals signs only — whole-class copybook practice, not marking.

5. **Class Challenge.** Brisk practice, not re-teaching. Pupils take turns on 14-2, 17-3, 19-4 and 18-5; the class confirms each landing before the next fact. Before every turn ask where they stand and which way they jump. On 18-5 give a beat for the class to predict 13 before Check.
6. **What Did We Notice?.** Leave 16-3 and 6-3 side by side on the board. Ask how they are the same and how they differ. Listen for 'same three jumps, different start' and revoice: 'same size of jump, bigger place to stand.' Head off anyone who thinks teens need a brand-new method.

COMMON MISCONCEPTIONS

⚠ Pupils say the start as the first jump — for 16-3 they chant '16, 15, 14' and land on 14 instead of 13. Freeze the board. Put a finger on 16 and hold it. 'We stand here; we do not say it again.' Restart so the first spoken number is 15, then count the three landings together.

⚠ Pupils treat teens take-aways as a brand-new skill and freeze, as if the jumps below ten no longer work past ten. Hold 16-3 beside 6-3. Same three jumps back; only the start place is bigger. Revoice: 'the jumps work the same way in the teens.'

DIFFERENTIATION

EMERGING

- Stay on take-aways of 2 only (14-2, 17-2) so pupils master stand-then-land before longer jump strings.
- On the number line, pre-place the start marker so the pupil only makes the backward jumps.

DEVELOPING

- After a correct landing, cover the line and ask them to retell the jumps from memory before Check.
- On 19-4, pause before the final jump and ask them to justify the predicted landing out loud.

PROFICIENT

- During Class Challenge, ask a fast finisher to predict the landing with eyes closed, then uncover the line to verify.
- Pose: '18-5 and 15-2 — which needs more jumps, and how do you know without jumping yet?' Copybook jottings only.

✍ **Cross-curricular:** Return to the PE basket: count beanbags out for a yard game and count the remainder back in.

ANSWER KEY

Scaffold: visual check on the page

Q1: 16

Q2: 12

Q3: 15

Q4: 17

Q5: 10

a) Always : Stand on 16 then land on 15, 14 and 13.

b) Sometimes : 16 - 3 stays on 13 but 16 - 7 would land below ten.

c) Always : You stand on 18; the first jump is one less.

d) Never : You stand on the start but the first said number is one less.

EXTENSION SHEET · STRETCH ANSWERS

S1: 12

S2: 11

S3: 4

S4: 5