Counting through zero: answers and notes

What your child practised: counting back through zero into negative numbers and reading them on a number line (Year 4; schools may say "minus numbers").

Page 1 · Warm up

3, 2, 1, **0**, **–1**, –2

Page 2 · Try it together

Answers will vary. Check by counting back along the sheets: from 1, back 3 lands on **–2** (0, –1, –2).

Page 2 · A. Fill the gaps

4, 3, 2, **1**, **0**, –1
1, 0, **–1**, –2, **–3**
–2, –3, **–4**, **–5**, –6
6, 4, 2, **0**, –2, **–4** (counting back in 2s)

Page 3 · B. Missing numbers

–5, **–3**, **–1** and **2**

Page 3 · C. Where do you land?

2 back 4 → **–2** · 0 back 3 → **–3**
5 back 7 → **–2** · –1 back 4 → **–5**

Page 3 · D. From 3 to –3

3, 2, 1, 0, –1, –2, –3: **7** numbers

Challenge: No. Sam skipped **zero**. Counting back 4 from 2 goes 1, 0, –1, –2, so he lands on **–2**. Ask your child to hop it on the number line, saying each number.

Watch out for

- **Skipping zero** (1, –1, –2). Zero is a number and needs its own hop.
- **Adding instead of counting back**, such as 2 back 4 = 6. "Back" means towards the left of the number line.
- **Dropping the minus sign** (writing 3 for –3). Ask "Is it more than zero, or less?"
- **Misreading the line by one step.** Touch each mark as you count, rather than the spaces between.

Going further (5 minutes, no paper)

- **Rocket countdown:** count down from 10 and keep going past blast-off: "…1, 0, –1, –2".
- **Number ping-pong:** take turns to say the next number counting back from 5 to –10.
- **In the game:** Chapter 2, Big Freeze, reads temperatures below zero on a thermometer.