

Lesson 20 **NUMBER****Subtraction strategies: counting on, take away, decomposition**

CURRICULUM ALIGNMENT

NUM.OPS.4

build upon, select and make use of a range of operation strategies.

INTERACTIVES

Number Line Jumps · challenge, display, explore

WHAT THIS LESSON TEACHES

To find a difference you can count on by jumping forward from the smaller number up to the larger number; the total of those forward jumps is the answer. You can also take away or use decomposition when the numbers suit.

→ $73 - 28$: jump +2 to 30, +40 to 70, +3 to 73. That is 45 altogether.

→ $81 - 46$: jump +4 to 50, +30 to 80, +1 to 81. That is 35 altogether.

MODEL THIS ON THE BOARD

COUNT ON FOR $73 - 28$

- ① Start at the smaller number **28**.
- ② Jump forward +2 to land on **30**.
- ③ Jump forward +40 to land on **70**.
- ④ Jump forward +3 to land on **73**.
- ⑤ Add the jumps: $2 + 40 + 3 = 45$. So $73 - 28 = 45$.

DISCUSSION STARTER

REFLECT

Did you prefer counting on or take-away? Why?

ANSWER KEY

Scaffold: visual check on the page**Q1:** 48 pencils**Q2:** 55 books**Q3:** 25 chairs**Q4:** 123 beanbags

a) Always : The total of the forward jumps equals the subtraction answer.

b) Never : The answer is the total length of the jumps, not the landing number.

c) Always : A short back-jump feels quicker for a tiny amount.

d) Sometimes : Jumps can be ones, tens or hundreds depending on the numbers.

EXTENSION SHEET · STRETCH ANSWERS

S1: 5644**S2:** 1499**S3:** 5142**S4:** 272**S5:** 321