



INSTRUCTIONAL GUIDANCE: NUMBER SEQUENCE

Explicit Instruction Routines

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Learning intention

We are learning to use number order to identify the number that comes before, after, or between other numbers.

Using these routines across Foundation and Year 1

ENSSA assesses this skill through the Missing Number task, where students identify the missing numeral in a counting sequence.

Foundation

Students identify missing numbers within 20 using counting, visual supports, number tracks, number paths, numeral recognition, and emerging understanding of teen numbers as 10 and some more.

Year 1

Students extend this work to numbers within 100, using number order, counting patterns, hundreds charts, and developing tens-and-ones understanding to identify missing numbers efficiently, including across decade transitions.

The routines are cumulative. Year 1 students may still need brief review using number tracks or number paths within 20 before moving to missing numbers within 100.

Success criteria

- ▶ I can read numerals in a sequence.
- ▶ I can count forwards or backwards by one.
- ▶ I can identify the number that comes before, after, or between.
- ▶ I can work out the missing number in a sequence.
- ▶ I can explain my thinking using number order.



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Context and Presentation	Teacher Modelling	Guided Practice / Correction Routine	Supported Independent Practice
Building and ordering cube stairs Build a short sequence such as 4, 5, 6, 7, then hide one stair and its numeral.	"I am going to build cube stairs for 4, 5, 6, and 7." Build and order the stairs. "Each stair has one more cube than the stair before it." Remove 6. "The missing number is 6 because it comes after 5 and before 7."	Build 6, 7, 8, 9 with students. Hide 8. "Which stair is missing? What number comes before? After?" Students: "The missing number is 8 because it comes after 7 and before 9." Correction: "7 and one more is 8."	Students build, order, and label cube stairs. A partner hides one stair. Students identify and replace the missing stair, then say: "The missing number is ___ because it comes after ___ and before ___." Fade to numeral-only sequences.
Missing number within 10 using a complete number path Example: 6, 7, __, 9 Number path: 1 2 3 4 5 6 7 8 9 10	"Here is the problem: 6, 7, blank, 9. The number path shows numbers in order. I will count: 6, 7, 8, 9. The missing number is 8 because it comes after 7 and before 9."	Display 4, 5, __, 7 above a number path. "Are these counting forwards or backwards? Which number is missing?" Students point and respond with the full sentence. Correction: "Find 4. Count: 4, 5, 6, 7. What comes after 5 and before 7?"	Students complete missing-number sequences within 10 using the number path. Prompts: "Read the sequence. What comes before the blank? After? What is missing?" Fade support to numeral-only sequences.
Missing teen numbers using a number path or number list Example: 13, 14, __, 16, with a number path or list to 20.	"The sequence is 13, 14, blank, 16. These numbers are counting forwards." Count: "13, 14, 15, 16. The missing number is 15 because it comes after 14 and before 16."	Display 11, __, 13, 14. "Are the numbers counting forwards or backwards? What comes after 11? Before 13?" Students: "The missing number is 12." Correction: If students say 13, point to path: "11, 12, 13, 14. The missing number comes after 11 and before 13."	Students complete teen missing-number sequences using a number path, list, or Base-10 materials. Examples: 10, 11, __, 13; 12, __, 14, 15; 15, 16, __, 18; 17, __, 19, 20. Students say the full stem sentence for each example.
Missing numbers across decades using a hundreds chart and Base-10 materials (Year 1) Example: 48, 49, __, 51	"The sequence is 48, 49, blank, 51. I will check on the hundreds chart: 48, 49, 50, 51." Build 49 with Base-10 materials. "49 is 4 tens and 9 ones. One more gives 10 ones, which makes 1 ten. Now there are 5 tens and 0 ones. That number is 50."	Display 29, __, 31, 32. "Are the numbers increasing or decreasing? What comes after 29? What happens when a number ending in 9 increases by one?" Students: "After 29 comes 30." Correction: Return to hundreds chart and Base-10 model.	Students complete decade-crossing sequences using a hundreds chart, Base-10 materials, or numeral-only prompts. Examples: 38, 39, __, 41; 57, 58, 59, __, 61; 68, 69, __, 71; 89, __, 91, 92. Students explain: "After ___ comes ___. The missing number is ___."
Backward missing-number sequences Example: 10, 9, __, 7 or 16, 15, __, 13, with a number path available.	"This sequence is counting backwards." Point to 10, 9, blank, 7. "I count backwards: 10, 9, 8, 7. The missing number is 8 because it comes after 9 when counting backwards, and before 7. I can check on the number path."	Display 14, 13, __, 11. "Are the numbers counting forwards or backwards? What comes next when we count back from 13?" Students: "12." Correction: "The numbers are getting smaller. Count backwards: 14, 13, 12, 11."	Students complete backward sequences. Examples: 8, 7, __, 5; 12, 11, __, 9; 20, 19, __, 17. Students identify whether the sequence is counting forwards or backwards before writing the missing number.
Numeral-only sequences with fading support Examples: 6, 7, __, 9 / 13, 14, __, 16 / 48, 49, __, 51	"Now I will solve the sequence without the number path first." Display 6, 7, __, 9. "I read the sequence: 6, 7, blank, 9. I know the number after 7 is 8, and 8 comes before 9. The missing number is 8. Now I can check on the number path."	Display 13, __, 15, 16. Students think first, then check using a number path or list. Correction: "Read the sequence. Decide the direction. Find the number before and after the blank. Then check."	Support faded in stages: (1) Sequence with complete number path. (2) Sequence first, number path for checking. (3) Hidden path available only if needed. (4) Numeral-only sequence. Students continue to use the stem sentence.