

Second Grade Primary Numeracy Assessment

The Primary Numeracy Assessment is one tool we use to see a student's number sense. A student who is able to completely pass the assessment (the highest score on all domains) has a good foundation of how numbers can be broken apart or put together and can do simple calculations in their head. Here is an explanation of every domain and what each score means. Scores are explained from highest to lowest.

Domain I: Number Identification. Can the student accurately read numbers in their standard form?

Score C (highest possible): The student can correctly identify numbers between 0 and 1,200.

Score B: The student can correctly identify numbers between 0 and 120.

Score A: The student can correctly identify numbers between 0 and 20.

Example errors: The student sees 261 and calls it "Twenty-six one" or they see 1,000 and call it "Ten thousand"

Domain II: Forward Counting. Can the student start at a number and count up accurately?

Score E (highest possible): The student can accurately count up to 1,000.

Score D: The student can accurately count past 200.

Score C: The student can accurately count past 100.

Score B: The student can accurately count to 20.

Score A: The student can accurately count to 10.

Example errors: The student skips numbers (45, 47, 48), cannot bridge from a 9 to the next 10 (28, 29, 20), or does not know which number comes next.

Domain III: Backward Counting. Can the student start at a given number and count backwards accurately?

Score E (highest possible): The student can accurately count backward from past 1,000.

Score D: The student can accurately count backward from past 100.

Score C: The student can accurately count backward below 100.

Score B: The student can accurately count backward from 20.

Score A: The student can accurately count backward from 10.

Example errors: The student skips numbers (43, 42, 40), cannot bridge from a 1 to a 0 to the next 9 ("31, 30, 39"), or does not know which number comes before.

Domain IV: Counting by 10s on & off decade. Can the student mentally add 10 to a number and count forward accurately?

Score E (highest possible): The student can fluently count past 1000, starting at any number and adding 10 each time.

Score D: The student can fluently count past 200, starting at any given number and adding 10.

Score C: The student can fluently count past 100, starting at any given number and adding 10.

Score B: The student can fluently count up to 99, starting at any given number and adding 10.

Score A: The student can count by 10s starting at 10 and adding 10.

Score E example: The student is shown the number 963. They accurately count, "973, 983, 993, 1,003, 1,013"

Domain V: Addition Fact Fluency. Can the student answer a basic addition fact without counting? They either use flexible thinking or fact memory.

Score E (highest possible): The student has memorized or can use flexible thinking to solve addition facts within 20

Score D: The student is able to correctly solve the addition problems by counting forward from the first addend, either in their heads or on their fingers.

Score C: The student is able to correctly solve 4 of the 5 addition problems by counting.

Score B: The student counts, but they are unable to correctly answer more than 3 addition facts.

Score A: The student could not answer or must drop all the way back to 1 and represent both numbers (such as 2 fingers on one hand and 3 fingers on the other) and then count.

Flexible thinking example: the student is shown $7 + 4 = \underline{\quad}$. They may say “I know $7 + 3$ is 10, so $7 + 4$ must be one more - 11.”

Domain VI: Subtraction Fact Fluency. Can the student answer a basic subtraction fact without counting? They either use flexible thinking or fact memory.

Score E (highest possible): The student has memorized or can use flexible thinking to solve subtraction facts within 20.

Score D: The student is able to correctly solve the subtraction facts by counting backward, either in their heads or on their fingers.

Score C: The student is able to correctly solve at least 3 or 4 of the 5 subtraction facts by counting.

Score B: The student counts back, but they are unable to correctly answer more than 2 subtraction facts.

Score A: The student could not answer or must count all the way up to a number and then count down to find the answer, such as counting up to 15 and then counting back down 8

Flexible thinking example: the student is shown $13 - 6 = \underline{\quad}$. They say or think “I know that $6 + 6 = 12$, and 13 is one more than 12, so if I take 6 away from 13 that is 7.”

Domain VII: Missing Number - Part, Part, Whole to 20. This is similar to basic addition and subtraction facts within 20, except instead of a missing answer, it is missing a part of the equation.

Score D (highest possible): The student can solve addition problems with a missing addend up to 20, using memory or flexible thinking.

Score C: The student can solve addition problems with a missing addend up to 10, using memory or flexible thinking.

Score B: The student can solve addition problems with a missing addend up to 5, using memory or flexible thinking.

Score A: The student is unable to correctly solve the problems with a missing addend.

Flexible thinking example: the student is shown $7 + \underline{\quad} = 20$. They say or think “I know that $7 + 3$ is ten, and ten more would be 20. So $7 + 13 = 20$.”

Domain VIII: Place Value: Split Counting by 100s, 10s, and 1s. Can the student break a number into place value units? Do they understand that a three-digit number is made up of hundreds, tens, and ones?

Score D (highest possible): The student can accurately identify and count past 200 using each place value without any representation.

Score C: The student can accurately count past 200 using a picture representation.

Score B: The student can accurately identify and count past 100 using the 10s and 1s.

Score A: The student is able to count picture representations of numbers under 100.

Score X: The student is unable to separate a number into hundreds, tens, and ones.

Example of score D: The student is shown the number 233. Without a picture or manipulatives, they count “one hundred, two hundred, two hundred ten, two hundred twenty, two hundred thirty, two hundred thirty-one, two hundred thirty-two, two hundred thirty-three.” A score of C means they saw the number represented in a place value picture.

Domain IX: Place Value: Adding Base Ten. Can the student accurately add or subtract tens and hundreds from 2 and 3 digit numbers in their head?

Score D (highest possible): The student can accurately add and subtract 100s from 3 digit numbers in their head.

Score C: The student can accurately add and subtract multiple 10s from 2 digit numbers in their head.

Score B: The student can accurately add and subtract a single 10 from 2 digit numbers in their head.

There is no score A

Domain X: Place Value: Adding from Base Ten. Can the student accurately add an amount to groups of 10 or 100 in their head?

Score D (highest possible): The student can accurately add an amount to a group of 10 or 100 in their head.

Score C: The student can accurately add an amount to a group of 10 in their head.

Score B: The student can accurately add an amount to 10 in their head.

There is no score A