

MATHEMATICAL EXPECTATIONS BY GRADE LEVEL

Students entering Kindergarten

1. Count to 20
2. Represent a number of objects with a written numeral 0-5 (with 0 representing a count of no objects)
3. Understand the relationship between numbers and quantities to 10; connect counting to cardinality
 - a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
 - b. Understand that the last number said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
 - c. Understand that each successive number name refers to a quantity that is one larger.
4. Count to answer ‘How many?’ questions about as many as 10 things arranged in a line, a rectangular array, or a circle, or as many as five things in a scattered configuration; given a number from 1-10, count out that many objects.
5. Identify whether the number of objects in one group is more, less, greater than, fewer, and/or equal to the number of objects in another group, e.g. by using matching and counting strategies.
6. Identify ‘First and ‘Last’ related to order or position.
7. Demonstrate an understanding of addition and subtraction by using objects, fingers and responding to practical situations (e.g., If we have 3 apples and add two more, how many apples do we have all together?)

See Engageny.org – NYS mathematics common core standards for more grade level expectations.

Students entering grade 1

1. Count to 100 by 1's and by 10's
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1)
3. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects)
4. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.
5. Fluently add and subtract within 5.
6. Write numbers from 0-20 out of sequence.

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Students entering grade 2

1. Use addition and subtraction within 100 to solve one-and two-step word problems involving situations of adding to, taking from, putting together, taking apart and comparing with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, Know from memory all sums of two one-digit numbers.
3. Count within 1000; skip-count by 5s, 10s and 100s.
4. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens and hundreds.
8. Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.

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