



Skills available for New York kindergarten math standards

Standards are in bold, followed by a list of the IXL math skills that are aligned to that standard. Students can practice these skills online at www.ixl.com.

Standards: New York State P-12 Common Core Learning Standards

K.CC Counting and Cardinality

K Know number names and the count sequence.

K.CC.1 Count to 100 by ones and by tens.

- Count to 3 (Kindergarten - A.1)
- Count using stickers - up to 3 (Kindergarten - A.2)
- Count to 5 (Kindergarten - B.1)
- Count using stickers - up to 5 (Kindergarten - B.2)
- Count to 10 (Kindergarten - C.1)
- Count using stickers - up to 10 (Kindergarten - C.4)
- Count to 20 (Kindergarten - D.1)
- Show numbers on ten frames - up to 20 (Kindergarten - D.4)
- Count tens and ones - up to 20 (Kindergarten - D.16)
- Count to 30 (Kindergarten - E.1)
- Count to 100 (Kindergarten - E.2)
- Counting on the hundred chart (Kindergarten - E.3)
- Count groups of ten (Kindergarten - E.4)
- Skip-count by tens (Kindergarten - F.4)

K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

- Count up - up to 5 (Kindergarten - B.6)
- Count up - with pictures (Kindergarten - C.8)
- Count up - with numbers (Kindergarten - C.9)
- Count forward - up to 10 (Kindergarten - C.16)
- Count up - up to 20 (Kindergarten - D.6)
- Count forward - up to 20 (Kindergarten - D.11)

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

- Count dots - 0 to 10 (Kindergarten - C.2)
- Count dots - 0 to 20 (Kindergarten - D.2)

K Count to tell the number of objects.

K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.

K.CC.4.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.

- Count to 3 (Kindergarten - A.1)
- Count to 5 (Kindergarten - B.1)
- Count to 10 (Kindergarten - C.1)
- Names of numbers - up to 10 (Kindergarten - C.18)
- Count to 20 (Kindergarten - D.1)
- Show numbers on ten frames - up to 20 (Kindergarten - D.4)

Names of numbers - up to 20 (Kindergarten - D.13)

K.CC.4.b Understand that the last number name 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.

Count to 3 (Kindergarten - A.1)

Count to 5 (Kindergarten - B.1)

Count to 10 (Kindergarten - C.1)

Count to 20 (Kindergarten - D.1)

K.CC.4.c Understand that each successive number name refers to a quantity that is one larger.

Count up - up to 5 (Kindergarten - B.6)

Count up and down - with pictures (Kindergarten - C.10)

K.CC.5 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.

Count to 3 (Kindergarten - A.1)

Count on ten frames - up to 3 (Kindergarten - A.3)

Show numbers on ten frames - up to 3 (Kindergarten - A.4)

Represent numbers - up to 3 (Kindergarten - A.5)

Count to 5 (Kindergarten - B.1)

Count on ten frames - up to 5 (Kindergarten - B.3)

Show numbers on ten frames - up to 5 (Kindergarten - B.4)

Represent numbers - up to 5 (Kindergarten - B.5)

Count to 10 (Kindergarten - C.1)

Count blocks - up to 10 (Kindergarten - C.3)

Count on ten frames - up to 10 (Kindergarten - C.5)

Show numbers on ten frames - up to 10 (Kindergarten - C.6)

Represent numbers - up to 10 (Kindergarten - C.7)

Count to 20 (Kindergarten - D.1)

Count on ten frames - up to 20 (Kindergarten - D.3)

Show numbers on ten frames - up to 20 (Kindergarten - D.4)

Represent numbers - up to 20 (Kindergarten - D.5)

Count blocks - up to 20 (Kindergarten - D.15)

K Compare numbers.

K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.

Fewer and more - compare by matching (Kindergarten - G.1)

Fewer and more - with charts (Kindergarten - G.2)

Fewer and more - mixed (Kindergarten - G.3)

Fewer, more, and equal (Kindergarten - G.4)

K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.

Compare two numbers - up to 10 (Kindergarten - G.5)

K.OA Operations and Algebraic Thinking

K Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

Addition with pictures - sums up to 5 (Kindergarten - I.1)
Add two numbers - sums up to 5 (Kindergarten - I.2)
Addition sentences - sums up to 5 (Kindergarten - I.3)
Addition with pictures - sums up to 10 (Kindergarten - I.6)
Add two numbers - sums up to 10 (Kindergarten - I.7)
Addition sentences - sums up to 10 (Kindergarten - I.8)
Subtract with pictures - numbers up to 5 (Kindergarten - J.1)
Subtraction - numbers up to 5 (Kindergarten - J.2)
Subtraction sentences - numbers up to 5 (Kindergarten - J.3)
Subtract with pictures - numbers up to 10 (Kindergarten - J.5)
Subtraction - numbers up to 9 (Kindergarten - J.6)
Subtraction sentences - numbers up to 10 (Kindergarten - J.7)

K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

Addition with pictures - sums up to 5 (Kindergarten - I.1)
Addition word problems - sums up to 5 (Kindergarten - I.5)
Addition with pictures - sums up to 10 (Kindergarten - I.6)
Addition word problems - sums up to 10 (Kindergarten - I.10)
Subtract with pictures - numbers up to 5 (Kindergarten - J.1)
Subtraction sentences - numbers up to 5 (Kindergarten - J.3)
Subtraction word problems - numbers up to 5 (Kindergarten - J.4)
Subtract with pictures - numbers up to 10 (Kindergarten - J.5)
Subtraction sentences - numbers up to 10 (Kindergarten - J.7)
Subtraction word problems - numbers up to 9 (Kindergarten - J.8)

K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).

Addition sentences - sums up to 5 (Kindergarten - I.3)
Ways to make a number - sums up to 5 (Kindergarten - I.4)
Addition sentences - sums up to 10 (Kindergarten - I.8)
Ways to make a number - sums up to 10 (Kindergarten - I.9)

K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

Count to fill a ten frame (Kindergarten - C.12)
Addition sentences - sums equal to 10 (Kindergarten - I.11)

K.OA.5 Fluently add and subtract within 5.

Addition with pictures - sums up to 5 (Kindergarten - I.1)
Add two numbers - sums up to 5 (Kindergarten - I.2)
Addition sentences - sums up to 5 (Kindergarten - I.3)
Subtract with pictures - numbers up to 5 (Kindergarten - J.1)
Subtraction - numbers up to 5 (Kindergarten - J.2)
Subtraction sentences - numbers up to 5 (Kindergarten - J.3)

K.NBT Number and Operations in Base Ten

K Work with numbers 11-19 to gain foundations for place value.

K.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or

drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Count tens and ones - up to 20 (Kindergarten - D.16)

Write tens and ones - up to 20 (Kindergarten - D.17)

K.MD Measurement and Data

K Describe and compare measurable attributes.

K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

Long and short (Kindergarten - Q.1)

Tall and short (Kindergarten - Q.2)

Light and heavy (Kindergarten - Q.3)

Holds more or less (Kindergarten - Q.4)

Compare size, weight, and capacity (Kindergarten - Q.5)

K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.

Long and short (Kindergarten - Q.1)

Tall and short (Kindergarten - Q.2)

Light and heavy (Kindergarten - Q.3)

Holds more or less (Kindergarten - Q.4)

Compare size, weight, and capacity (Kindergarten - Q.5)

K Classify objects and count the number of objects in each category.

K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Fewer and more - with charts (Kindergarten - G.2)

Fewer and more - mixed (Kindergarten - G.3)

Same (Kindergarten - N.1)

Different (Kindergarten - N.2)

Same and different (Kindergarten - N.3)

Classify by color (Kindergarten - N.4)

Classify and sort by color (Kindergarten - N.5)

Classify and sort by shape (Kindergarten - N.6)

Classify and sort (Kindergarten - N.7)

Sort shapes into a Venn diagram (Kindergarten - N.8)

Count shapes in a Venn diagram (Kindergarten - N.9)

Put numbers up to 10 in order (Kindergarten - N.10)

Put numbers up to 30 in order (Kindergarten - N.11)

Making graphs (Kindergarten - O.1)

Interpreting graphs (Kindergarten - O.2)

K.G Geometry

K Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

Inside and outside (Kindergarten - K.1)

Left, middle, and right (Kindergarten - K.2)

Top, middle, and bottom (Kindergarten - K.3)

Above and below (Kindergarten - K.4)

Location in a grid (Kindergarten - K.5)

Geometry of everyday objects (Kindergarten - S.8)

K.G.2 Correctly name shapes regardless of their orientations or overall size.

Count shapes in a Venn diagram (Kindergarten - N.9)

Identify shapes I (Kindergarten - S.1)

Identify shapes II (Kindergarten - S.2)

Identify solid figures (Kindergarten - S.4)

K.G.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

Relate planar and solid figures (Kindergarten - S.5)

K Analyze, compare, create, and compose shapes.

K.G.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

Identify shapes I (Kindergarten - S.1)

Identify shapes II (Kindergarten - S.2)

Same shape (Kindergarten - S.3)

Identify solid figures (Kindergarten - S.4)

Relate planar and solid figures (Kindergarten - S.5)

Count sides and corners (Kindergarten - S.6)

Compare sides and corners (Kindergarten - S.7)

Symmetry I (Kindergarten - S.9)

Symmetry II (Kindergarten - S.10)

K.G.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

K.G.6 Compose simple shapes to form larger shapes.

For more information about IXL, go to www.ixl.com or send an e-mail to orders@ixl.com.