



Skills available for New York pre-K 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

PK.CC Counting and Cardinality

PK Know number names and the count sequence.

PK.CC.1 Count to 20.

Names of numbers - up to 10 (Kindergarten - C.18)

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

PK.CC.2 Represent a number of objects with a written numeral 0-5 (with 0 representing a count of no objects).

Count dots (up to 3) (Pre-K - B.1)

Count shapes (up to 3) (Pre-K - B.2)

Count objects (up to 3) (Pre-K - B.3)

Count dots (up to 5) (Pre-K - C.1)

Count shapes (up to 5) (Pre-K - C.2)

Count objects (up to 5) (Pre-K - C.3)

PK Count to tell the number of objects.

PK.CC.3 Understand the relationship between numbers and quantities to 10; connect counting to cardinality.

PK.CC.3.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 dots (up to 3) (Pre-K - B.1)

Count shapes (up to 3) (Pre-K - B.2)

Count objects (up to 3) (Pre-K - B.3)

Count dots (up to 5) (Pre-K - C.1)

Count shapes (up to 5) (Pre-K - C.2)

Count objects (up to 5) (Pre-K - C.3)

PK.CC.3.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 dots (up to 3) (Pre-K - B.1)

Count shapes (up to 3) (Pre-K - B.2)

Count objects (up to 3) (Pre-K - B.3)

Count dots (up to 5) (Pre-K - C.1)

Count shapes (up to 5) (Pre-K - C.2)

Count objects (up to 5) (Pre-K - C.3)

Count dots (up to 10) (Pre-K - D.1)

Count shapes (up to 10) (Pre-K - D.2)

Count objects (up to 10) (Pre-K - D.3)

PK.CC.3.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 - with numbers (Kindergarten - C.9)

PK.CC.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 5 things in a scattered configuration; given a number from 1-10, count out that many objects.

- Count dots (up to 3) (Pre-K - B.1)
- Count shapes (up to 3) (Pre-K - B.2)
- Count objects (up to 3) (Pre-K - B.3)
- Represent numbers (up to 3) (Pre-K - B.7)
- Count dots (up to 5) (Pre-K - C.1)
- Count shapes (up to 5) (Pre-K - C.2)
- Count objects (up to 5) (Pre-K - C.3)
- Represent numbers (up to 5) (Pre-K - C.7)
- Count dots (up to 10) (Pre-K - D.1)
- Count shapes (up to 10) (Pre-K - D.2)
- Count objects (up to 10) (Pre-K - D.3)
- Represent numbers (up to 10) (Pre-K - D.7)

PK Compare numbers.

PK.CC.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.1 (1: up to 5 objects)

- More (Pre-K - F.1)
- Compare in a chart (fewer or more) (Pre-K - F.3)
- Compare in a mixed group (Pre-K - F.4)
- Compare numbers (larger and largest) (Pre-K - F.5)

PK.CC.6 Identify "first" and "last" related to order or position.

PK.OA Operations & Algebraic Thinking

PK Understand addition as adding to, and understand subtraction as taking from.

PK.OA.1 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?).

- Addition with pictures - sums up to 5 (Kindergarten - I.1)
- Addition word problems - sums up to 5 (Kindergarten - I.5)
- Subtract with pictures - numbers up to 5 (Kindergarten - J.1)
- Subtraction word problems - numbers up to 5 (Kindergarten - J.4)

PK Understand simple patterns.

PK.OA.2 Duplicate and extend (eg., What comes next?) simple patterns using concrete objects.

- Similar patterns (Kindergarten - H.1)
- Complete missing parts of patterns (Kindergarten - H.2)

PK.MD Measurement & Data

PK Describe and compare measurable attributes.

PK.MD.1 Identify measurable attributes of objects, such as length, and weight. Describe them using correct vocabulary (e.g., small, big, short, tall, empty, full, heavy, and light).

- Long and short (Pre-K - I.1)
- Tall and short (Pre-K - I.2)
- Light and heavy (Pre-K - I.3)
- Holds more or less (Pre-K - I.4)

Compare height, weight, and capacity (Pre-K - I.5)

Wide and narrow (Pre-K - I.6)

PK Sort objects and count the number of objects in each category.

PK.MD.2 Sort objects into categories; count the numbers of objects in each category. 1 (limit category counts to be less than or equal to 10)

Same (Pre-K - H.1)

Different (Pre-K - H.2)

Same and different (Pre-K - H.3)

Classify by color (Pre-K - H.4)

PK.G Geometry

PK Identify and describe shapes (squares, circles, triangles, rectangles).

PK.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as top, bottom, up, down, in front of, behind, over, under, and next to.

Inside and outside (Pre-K - G.1)

Left and right (Pre-K - G.2)

Left, middle, and right (Pre-K - G.3)

Above and below (Pre-K - G.4)

Top and bottom (Pre-K - G.5)

PK.G.2 Correctly name shapes regardless of size.

Identify circles, squares, and triangles (Pre-K - A.1)

Identify squares and rectangles (Pre-K - A.2)

PK Analyze, compare, and sort objects.

PK.G.3 Analyze, compare, and sort two- and three-dimensional shapes and objects, in different sizes, using informal language to describe their similarities, differences, and other attributes (e.g., color, size, and shape).

Same (Pre-K - H.1)

Different (Pre-K - H.2)

Same and different (Pre-K - H.3)

Classify by color (Pre-K - H.4)

PK.G.4 Create and build shapes from components (e.g., sticks and clay balls).

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