

Mathematics

K-8 Content Standards

Kindergarten

It is essential that these standards be addressed in contexts that promote problem solving, reasoning, communication, making connections, and designing and analyzing representations.

K.1 Number and Operations and Algebra: **Represent, compare, and order whole numbers, and join and separate sets.**

- K.1.1 Read and write whole numbers to 10.
- K.1.2 Connect numbers, including written numerals, to the quantities they represent, using various physical models and representations.
- K.1.3 Count forward by ones beginning with any number less than 30; count backward by ones beginning with any number 10 or less.
- K.1.4 Recognize the number of objects in a small set (such as the arrangements of dots on a number cube) without counting.
- K.1.5 Count objects in a set using one-to-one correspondence and produce sets of given sizes.
- K.1.6 Compare and order sets or numerals by using both cardinal and ordinal meanings.
- K.1.7 Model simple joining and separating situations and represent them with objects, pictures, and/or numerals.
- K.1.8 Choose, combine, and apply effective strategies for solving joining and separating problems.
- K.1.9 Identify, duplicate, and extend simple number patterns and sequential and growing patterns (e.g., patterns made with shapes).

K.2 Geometry: **Describe shapes and space.**

- K.2.1 Identify, name, and describe basic two-dimensional shapes (e.g., square, circle, triangle, rectangle, regular hexagon) presented in a variety of ways (e.g., with different sizes or orientations).
- K.2.2 Identify, name, and describe basic three-dimensional shapes (e.g., sphere, cube, and cylinder).
- K.2.3 Use basic shapes and spatial reasoning to describe and model objects in their environment, and to construct more complex shapes.

K.3 Measurement: **Compare and order objects by attributes.**

- K.3.1 Identify the measurable attributes (e.g., length, weight) and non-measurable attributes (e.g., color) of an object.
- K.3.2 Compare, sort, and order objects according to measurable (e.g., longest to shortest, lightest to heaviest) and non-measurable (e.g., color, texture) attributes.
- K.3.3 Compare the lengths of two objects both directly (by comparing them with each other) and indirectly (by comparing both with a third object).