

Kindergarten

Number, Number Sense and Operations Standard

Number and Number Systems

1. Compare and order whole numbers up to 10.
2. Explain rules of counting, such as each object should be counted once and that order does not change the number.
3. Count to twenty; e.g., in play situations or while reading number books.
4. Determine “how many” in sets (groups) of 10 or fewer objects.
5. Relate, read and write numerals for single -digit numbers (0 to 9).
6. Construct multiple sets of objects each containing the same number of objects.
7. Compare the number of objects in two or more sets when one set has one or two more, or one or two fewer objects.
8. Represent and use whole numbers in flexible ways, including relating, composing and decomposing numbers; e.g., 5 marbles can be 2 red and 3 green or 1 red and 4 green.
9. Identify and state the value of a penny, nickel and dime.
10. Model and represent addition as combining sets and counting on, and subtraction as take-away and comparison. For example:
 - a. Combine and separate small sets of objects in contextual situations; e.g., add or subtract one, two, or another small amount.
 - b. Count on (forward) and count back (backward) on a number line between 0 and 10.

Meaning of Operations

11. Demonstrate joining multiple groups of objects, each containing the same number of objects; e.g., combining 3 bags of candy, each containing 2 pieces.
12. Partition or share a small set of objects into groups of equal size; e.g., sharing 6 stickers equally among 3 children.
13. Recognize the number or quantity of sets up to 5 without counting; e.g., recognize without counting the dot arrangement on a domino as 5.

*Computation
and Estimation*

Measurement Standard

- Measurement Units*
1. Identify units of time (day, week, month, year) and compare calendar elements; e.g., weeks are longer than days.
- Use Measurement Techniques and Tools*
- 1.
 2. Compare and order objects of different lengths, areas, weights and capacities; and use relative terms, such as longer, shorter, bigger, smaller, heavier, lighter, more and less.
 3. Measure length and volume (capacity) using uniform objects in the environment. For example, find:
 - a. how many paper clips long is a pencil;
 - b. how many small containers it takes to fill one big container using sand, rice, beans.
 4. Order events based on time. For example:
 - a. activities that take a long or short time;
 - b. review what we do first, next, last;
 - c. recall what we did or plan to do yesterday, today, tomorrow.

Geometry and Spatial Sense Standard

- Characteristics and Properties*
1. Identify and sort two-dimensional shapes and three-dimensional objects. For example:
 - a. Identify and describe two-dimensional figures and three-dimensional objects from the environment using the child's own vocabulary.
 - b. Sort shapes and objects into groups based on student-defined categories.
 - c. Select all shapes or objects of one type from a group.
 - d. Build two-dimensional figures using paper shapes or tangrams; build simple three-dimensional objects using blocks.
 2. Name and demonstrate the relative position of objects as follows:
- Spatial Relationships*
- a. place objects over, under, inside, outside, on, beside, between, above, below, on top of, upside-down, behind, in back of, in front of;
 - b. describe placement of objects with terms, such as on, inside, outside, above, below, over, under, beside, between, in front of, behind.

Patterns, Functions and Algebra Standard

Use Patterns, Relations and Functions

1. Sort, classify and order objects by size, number and other properties. For example:
 - a. Identify how objects are alike and different.
 - b. Order three events or objects according to a given attribute, such as time or size.
 - c. Recognize and explain how objects can be classified in more than one way.
 - d. Identify what attribute was used to sort groups of objects that have already been sorted.
2. Identify, create, extend and copy sequences of sounds (such as musical notes), shapes (such as buttons, leaves or blocks), motions (such as hops or skips), and numbers from 1 to 10.
3. Describe orally the pattern of a given sequence.
4. Model a problem situation using physical materials.

Use Algebraic Representations

Data Analysis and Probability Standard

Data Collection

1. Gather and sort data in response to questions posed by teacher and students; e.g., how many sisters and brothers, what color shoes.
2. Arrange objects in a floor or table graph according to attributes, such as use, size, color or shape.
3. Select the category or categories that have the most or fewest objects in a floor or table graph.

Statistical Methods