

Grade Level Expectations for the Sunshine State Standards

Mathematics Kindergarten



FLORIDA DEPARTMENT OF EDUCATION
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**Sunshine State Standards
Grade Level Expectations
Mathematics
Kindergarten**

The kindergarten student:

Number Sense, Concepts, and Operations

- counts up to 10 or more objects using verbal names and one-to-one correspondence.
- reads and writes numerals to 10 or more.
- knows that cardinal numbers indicate quantity and ordinal numbers indicate position.
- uses numbers and pictures to describe how many objects are in a set (to 10 or more).
- uses language such as *before* or *after* to describe relative position in a sequence of whole numbers on a number line up to 10 or more (for example, 4 is before 5, 5 is after 4).
- compares two or more sets (up to 10 objects in each set) and identifies which set is equal to, more than, or less than the other.
- uses sets of concrete materials to represent quantities, to 10 or more, given in verbal or written form.
- uses concrete materials to represent fractional parts of a whole (one half, one fourth).
- represents equivalent forms of the same number, up to 10 or more, through the use of concrete materials (for example, 5 can be represented as 1+4, 2+3, 0+5; five pennies equal one nickel and ten pennies equal one dime).
- counts orally to 100 or more by 1s, 2s, 5s, and 10s using a hundred chart or concrete materials.
- uses concrete materials, pictures, and numerals to show the concept of numbers to 10 or more.
- counts backward from ten to one.
- groups objects in sets of 2 or more.
- knows the relationships between larger numbers and smaller numbers.
- demonstrates and describes the effect of putting together and taking apart sets of objects (for example, 3 cubes and 4 cubes is 7 cubes).
- creates and acts out number stories using objects.
- knows strategies for solving number problems.
- demonstrates an awareness of addition and subtraction in everyday activities (using concrete objects, models, drawings, role playing).
- estimates and verifies by counting sets that have more, fewer, or the same number of objects (for example, using a reference set of objects, comparing cards with different numbers of dots, estimating whether sets are more or less than a given number such as five).
- builds models to show that numbers are odd or even (up to 10).

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Measurement

- knows how to communicate measurement concepts.
- measures length of objects and distance using nonstandard concrete materials.
- weighs objects to explore concepts of heavier and lighter.
- describes concepts of time (for example, before or after, day or night).
- describes concepts of temperature (for example, hot or cold).
- compares and demonstrates the concept of capacity (for example, full or empty).
- uses nonstandard objects, such as cubes, marbles, paper clips, and pencils, to measure classroom objects (for example, table length is 10 crayons or four pencils).
- uses direct (side-by-side) comparisons to sort and order objects by their lengths.
- uses indirect comparisons to compare lengths of objects that cannot be physically compared (side-by-side) (for example, compares height of counters in classroom and cafeteria by using string or in reference to child's own body).
- compares and orders classroom objects by their weights, determining which objects weigh more, less, or about the same.
- uses uniform nonstandard units to measure common classroom objects.
- uses nonstandard units to estimate, and verifies by measuring, the length and width of common classroom objects.
- knows the time of day as day or night; morning, afternoon, or evening; and yesterday, today, or tomorrow.
- knows which of two daily activities takes more or less time.
- knows and compares the values of a penny (1 cent), nickel (5 cents), and dime (10 cents).
- uses nonstandard units appropriately (for example, pencil, cubes, scoops of rice).
- knows various measuring tools for measuring length, weight, or capacity.
- knows ways to measure time, including calendar, days, weeks, months, and days of week.

Geometry and Spatial Sense

- knows two-dimensional shapes (for example, circles, squares, rectangles, triangles), describing similarities and differences.
- sorts three-dimensional objects by varied attributes or according to their geometric shapes (for example, cubes, spheres, cylinders, cones).

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- recognizes symmetry in the environment and uses concrete materials to make symmetrical figures (for example, paper fold, paint blot).
- matches objects to outlines of their shapes.
- knows spatial relationships (for example, in or out; above or below; over or under; top, bottom, or middle).
- identifies left and right hand.
- follows directions to move or place an object in relation to another (for example, next to, to the right of).
- uses concrete objects to explore slides and turns.
- recognizes, compares, and sorts real-world objects or models of solids.
- knows the attributes of circles, squares, triangles, and rectangles (for example, edges, corners, curves).
- locates known and unknown numbers on a number line from 0 to 10 or more (for example, finding what number you are on if you move 2 numbers forward or 3 numbers back).

Algebraic Thinking

- identifies simple patterns of sounds, physical movements, and concrete objects.
- sorts and classifies objects by color, shape, size, or kind.
- identifies objects that do not belong to a particular group (for example, blue lid in set of red lids).
- predicts and extends existing patterns using concrete materials.
- uses concrete objects to create a pattern.
- transfers patterns from one medium to another (for example, actions, sounds, or concrete objects).
- knows that symbols can be used to represent missing or unknown quantities (for example, fill in the missing number in 5, 6, □, 8).
- uses informal methods, such as pictures, concrete materials, and role playing, to solve real world problems.
- uses one-to-one matching to determine if two groups are equal.

Data Analysis and Probability

- displays answers to simple questions involving two categories or choices using concrete materials or pictures on a graph or chart (for example, in a class, number of boys and girls, students with buttons and students with no buttons).

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- interprets data exhibited in concrete or pictorial graphs.
- uses concrete materials, pictures, or graphs to show range and mode (for example, on a human, block, or picture graph showing number of brother and sisters, range is from zero to highest number of siblings; mode is number of siblings most common in class).
- collects, displays data, and makes generalizations (for example, determines number of pockets on 5 children; predicts how many 10 students or the whole class will have).
- knows the likelihood of a given situation (for example, Could a lion come visit you? Will we have school tomorrow? Will it rain today?).
- participates in games or activities dependent upon chance (for example, using spinners or number cubes).
- knows if a given event is more likely, equally likely, or less likely to occur (for example, chicken nuggets or pizza for lunch in the cafeteria).
- displays the answer to a simple class question with two categories using concrete materials, a pictograph, or chart (for example, hot or cold; wings or no wings).
- determines through class discussions questions for a simple two-choice survey so that the collected information will answer the questions.



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