

Grade Level Expectations for the Sunshine State Standards

Mathematics Grades K-2



FLORIDA DEPARTMENT OF EDUCATION

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Sunshine State Standards
Grade Level Expectations
Mathematics K-2

Strand A: Number Sense, Concepts, and Operations

Standard 1: The student understands the different ways numbers are represented and used in the real world.

Benchmark MA.A.1.1.1: The student associates verbal names, written word names, and standard numerals with the whole numbers less than 1000.

Grade Level Expectations

The student:

Kindergarten

1. counts up to 10 or more objects using verbal names and one-to-one correspondence.
2. reads and writes numerals to 10 or more.
3. counts orally to 100 or more.
4. knows that cardinal numbers indicate quantity and ordinal numbers indicate position.

First

1. uses one-to one correspondence to count objects to 100 or more.
2. reads and writes numerals to 100 or more.
3. uses ordinal numbers 1st - 10th or higher.

Second

1. reads and writes numerals to 1000 or more.
2. reads and writes number words to “twenty” or higher.
3. understands and uses ordinal numbers 1st - 100th or higher.

Benchmark MA.A.1.1.2: The student understands the relative size of whole numbers between 0 and 1000.

Grade Level Expectations

The student:

Kindergarten

1. uses numbers and pictures to describe how many objects are in a set (to 10 or more).
2. 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).
3. 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.

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First

1. compares and orders whole numbers to 100 or more using concrete materials, drawings, number lines, and symbols ($<$, $=$, $>$).
2. compares two or more sets (up to 100 objects in each set) and identifies which set is equal to, more than, or less than the other.

Second

1. compares and orders whole numbers to 1000 or more using concrete materials, drawings, number lines, and symbols ($<$, $=$, $>$).
2. compares two or more numbers, to 1000 or more, and identifies which number is more than, equal to, or less than the other number.

Benchmark MA.A.1.1.3: The student uses objects to represent whole numbers or commonly used fractions and relates these numbers to real-world situations.

Grade Level Expectations

The student:

Kindergarten

1. uses sets of concrete materials to represent quantities, to 10 or more, given in verbal or written form.
2. uses concrete materials to represent fractional parts of a whole (one half, one fourth).

First

1. represents real-world applications of whole numbers, to 100 or more, using concrete materials, drawings, and symbols.
2. represents and explains fractions (one half, one fourth, three fourths) as part of a whole and part of a set using concrete materials and drawings.
3. uses concrete materials to compare fractions in real-life situations (for example, pizzas, cookies).
4. knows that the total of equivalent fractional parts makes a whole (for example, two halves equal one whole).

Second

1. represents real-world applications of whole numbers, to 1000 or more, using concrete materials, drawings, and symbols.
2. represents, compares, and explains halves, thirds, quarters, and eighths as part of a whole and part of a set, using concrete materials and drawings.

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3. uses concrete materials to compare fractions in real-life situations.
4. knows that the total of equivalent fractional parts makes a whole (for example, eight eighths equal one whole).

Benchmark MA.A.1.1.4: The student understands that whole numbers can be represented in a variety of equivalent forms.

Grade Level Expectations

The student:

Kindergarten

1. represents equivalent forms of the same number, up to 10 or more, through the use of concrete materials (for example, using unifix cubes, 5 can be represented as $1+4$, $2+3$, $0+5$; five pennies equal one nickel and ten pennies equal one dime).

First

1. represents equivalent forms of the same number, up to 20 or more, through the use of concrete materials (including coins), diagrams, and number expressions (for example, 16 can be represented as $8+8$, $10+6$, $4+4+4+4$, $20-4$, $17-1$).

Second

1. represents equivalent forms of the same number through the use of concrete materials (including coins), diagrams, and number expressions.

Standard 2: The student understands number systems.

Benchmark MA.A.2.1.1: The student understands and applies the concepts of counting (by 2s, 3s, 5s, 10s, 25s, 50s), grouping, and place value with whole numbers between 0 and 100.

Grade Level Expectations

The student:

Kindergarten

1. with teacher direction, counts orally to 100 or more by 2s, 5s, and 10s using a hundred chart or concrete materials.
2. uses concrete materials, pictures, and numerals to show the concept of numbers to 10 or more.
3. counts backward from ten to one.

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First

1. counts orally to 100 or more by 2s, 5s, and 10s with or without a hundred chart.
2. uses concrete materials, pictures, and symbols to show the grouping and place value of numbers to 100 or more.
3. counts forward and backward by one beginning with any number less than 100.
4. counts forward by tens from any number less than 10 using a hundred chart.

Second

1. counts to 1000 or more by 2s, 3s, 5s, 10s, 25s, 50s and 100s using a variety of ways, such as mental mathematics, paper and pencil, hundred chart, calculator, and coins in various increments.
2. demonstrates the place value groupings of numbers to 1000 or more using concrete materials, pictures, and symbols.
3. counts by tens from any given number less than 1000.
4. counts forward or backward by one beginning with any number less than 1000.
5. counts coins using “mixed” counting (using coin values of 50, 25, 10, 5, and 1).

Benchmark MA.A.2.1.2: The student uses number patterns and the relationships among counting, grouping, and place value strategies to demonstrate an understanding of the whole number system.

Grade Level Expectations

The student:

Kindergarten

1. groups objects in sets of 2 or more.
2. knows the relationships between larger numbers and smaller numbers.

First

1. counts and groups 11 or more objects into tens and ones (for example, 3 groups of ten and 4 more is 34 or $30+4$).
2. knows place value patterns and uses zero as a place holder (for example, trading 10 ones for 1 ten).
3. knows the place value of a designated digit in whole numbers to 100.

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Second

1. counts and groups objects into hundreds, tens, and ones, and relates the groupings to the corresponding written numeral (for example, 4 groups of 100, 2 groups of ten, and 6 ones is 426).
2. knows place value patterns using zero as a place holder (for example, trading 10 tens for 100).
3. knows the place value of a designated digit in whole numbers to 1000.

Standard 3: The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving.

Benchmark MA.A.3.1.1: The student understands and explains the effects of addition and subtraction on whole numbers, including the inverse (opposite) relationship of the two operations.

Grade Level Expectations

The student:

Kindergarten

1. demonstrates and describes the effect of putting together and taking apart sets of objects (for example, 3 cubes and 4 cubes is 7 cubes).
2. uses a number line to demonstrate how to count up and count back from a given number.

First

1. demonstrates knowledge of the meaning of addition (putting together, increasing) and subtraction (taking away, comparing, finding the difference) using manipulatives, drawings, symbols, and story problems.
2. solves basic addition facts using concrete objects and thinking strategies, such as count on, count back, doubles, doubles plus one, and make ten.
3. describes the related facts that represent a given fact family up to 18 (for example, $9+3=12$, $12-9=3$, $12-3=9$).
4. knows how to use the commutative and associative properties of addition in solving problems and basic facts.
5. adds and subtracts two-digit numbers without regrouping (sums to 100) using models, concrete materials, or algorithms.

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Second

1. recalls (from memory) the addition facts and corresponding subtraction facts.
2. knows the related facts that represent the inverse relationships between addition and subtraction.
3. predicts the relative size of solutions in addition and subtraction (for example, adding two whole numbers results in a number that is larger than either of the two original numbers).
4. adds and subtracts two-digit numbers with or without regrouping using models, concrete materials, and algorithms.
5. demonstrates knowledge of multiplication (for the repeated addition and array models) using manipulatives, drawings, and story problems.
6. demonstrates knowledge of division (for the repeated subtraction and partitive models) using manipulatives, drawings, and story problems.

Benchmark MA.A.3.1.2: The student selects the appropriate operation to solve specific problems involving addition and subtraction of whole numbers.

Grade Level Expectations

The student:

Kindergarten

1. creates and acts out number stories using objects.
2. knows strategies for solving number problems.

First

1. poses and solves simple number problems by selecting the proper operation (for example, finding how many students are sitting at tables one and two).
2. uses concrete objects to solve number problems with one operation.
3. describes thinking when solving number problems.
4. writes number sentences associated with addition and subtraction situations.

Second

1. solves problems involving addition and subtraction using a variety of strategies (such as drawings, role playing, and working backward) and explains the solution strategy.
2. writes and solves number problems with one operation involving addition or subtraction.
3. writes number sentences associated with addition and subtraction situations.

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4. creates and acts out (using objects) number stories representing multiplication and division situations.

Benchmark MA.A.3.1.3: The student adds and subtracts whole numbers to solve real-world problems, using appropriate methods of computing, such as objects, mental mathematics, paper and pencil, calculator.

Grade Level Expectations

The student:

Kindergarten

1. demonstrates an awareness of addition and subtraction in everyday activities (using concrete objects, models, drawings, role playing).

First

1. knows appropriate methods (for example, concrete materials, mental mathematics, paper and pencil) to solve real-world problems involving addition and subtraction.
2. uses a calculator to explore addition, subtraction, and skip counting.

Second

1. knows appropriate methods (for example, concrete materials, mental mathematics, paper and pencil, calculator) to solve real-world problems involving addition and subtraction.
2. chooses and explains the computing method that is more appropriate (that is faster, more accurate, easier) for varied real-world tasks (for example, recall of basic facts is faster than using a calculator whereas recording data from survey results may be easier with a calculator).

Standard 4: The student uses estimation in problem solving and computation.

Benchmark MA.A.4.1.1: The student provides and justifies estimates for real-world quantities.

Grade Level Expectations

The student:

Kindergarten

1. 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).

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First

1. uses the language of estimation and approximation to identify and describe numbers in real-world situations (for example, about, near, closer to, between).
2. estimates the number of objects, explains the reasoning for the estimate, and checks the reasonableness of the estimate by counting.
3. makes reasonable estimates when comparing larger or smaller quantities.
4. estimates reasonable answers to basic facts (e.g., Will $7+8$ be more than 10?).

Second

1. makes predictions of quantities of objects (to 50 or more) and explains the reasoning supporting that prediction (for example, the number of pieces of candy in a large jar may be estimated by finding the number of pieces in a small jar and estimating how many small jars would fill the larger one).
2. estimates reasonable solutions for addition and subtraction problems (sums to 100) and explains the procedure used (for example, the sum of 34 and 57 is more than 80 since $30 + 50$ is 80).
3. knows reasonable and unreasonable estimates.

Standard 5: The student understands and applies theories related to numbers.

Benchmark MA.A.5.1.1: The student classifies and models numbers as even or odd.

Grade Level Expectations

The student:

Kindergarten

1. uses concrete objects to explore odd and even numbers (up to 10).

First

1. demonstrates and builds models to show the difference between odd and even numbers using concrete objects or drawings.

Second

1. demonstrates and explains the difference between odd and even numbers using concrete objects or drawings.
2. identifies and explains odd and even numbers.

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Strand B: Measurement

Standard 1: The student measures quantities in the real world and uses the measures to solve problems.

Benchmark MA.B.1.1.1: The student uses and describes basic measurement concepts including length, weight, digital and analog time, temperature, and capacity.

Grade Level Expectations

The student:

Kindergarten

1. knows how to communicate measurement concepts.
2. measures length of objects and distance using nonstandard concrete materials.
3. weighs objects to explore concepts of heavier and lighter.
4. describes concepts of time (for example, before or after, day or night).
5. describes concepts of temperature (for example, hot or cold).
6. compares and demonstrates the concept of capacity (for example, full or empty).

First

1. knows how to communicate measurement concepts.
2. demonstrates an understanding of measurement of lengths by selecting appropriate units of measurement (for example, inches or feet).
3. demonstrates an understanding of weight by selecting appropriate units of measurement (for example, grams or kilograms).
4. demonstrates an understanding of time using digital and analog clocks (for example, hour and half-hour intervals).
5. demonstrates an understanding of temperature by using thermometers.
6. demonstrates an understanding of capacity by selecting appropriate units of measurement (for example, cups, pints, quarts, liters).

Second

1. knows how to communicate measurement concepts.
2. demonstrates an understanding of customary and metric measurement of length and distance, selecting appropriate units of measurement (for example, inches, feet, yards, centimeters, meters).

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3. demonstrates an understanding of customary and metric measurement of weight by selecting appropriate units of measurement (for example, ounces, pounds, grams, kilograms).
4. demonstrates an understanding of time using digital and analog clocks (for example, quarter-hour, five-minute intervals).
5. demonstrates an understanding of temperatures by using Fahrenheit and Celsius thermometers.
6. demonstrates an understanding of capacity by using appropriate units of measurement (for example, ounces, cups, pints, quarts, gallons, liters, milliliters).

Benchmark MA.B.1.1.2: The student uses standard customary and metric (centimeter, inch) and nonstandard units, such as links or blocks, in measuring real quantities.

Grade Level Expectations

The student:

Kindergarten

1. 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).

First

1. measures length, weight, or capacity of an object using standard and nonstandard units (for example, pounds, grams, or wooden blocks).

Second

1. measures length, weight, and capacity of objects using standard and nonstandard units.

Standard 2: The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary).

Benchmark MA.B.2.1.1: The student uses direct (measured) and indirect (not measured) comparisons to order objects according to some measurable characteristics (length, weight).

Grade Level Expectations

The student:

Kindergarten

1. uses direct (side-by-side) comparisons to sort and order objects by their lengths.

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2. 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).
3. compares and orders classroom objects by their weights, determining which objects weigh more, less, or about the same.

First

1. uses nonstandard methods to compare and order objects according to their lengths or weights.
2. uses nonstandard, indirect methods to compare and order objects according to their lengths.
3. uses customary and metric units to measure, compare, and order objects according to their lengths or weights.

Second

1. uses nonstandard methods to compare and order objects according to their lengths, weights, or capacities.
2. uses nonstandard, indirect methods to compare and order objects according to their lengths.
3. uses customary and metric units to measure, compare, and order objects according to their lengths, weights, or capacities.

Benchmark MA.B.2.1.2: The student understands the need for a uniform unit of measure to communicate in real-world situations.

Grade Level Expectations

The student:

Kindergarten

1. uses uniform nonstandard units to measure common classroom objects.

First

1. knows that a uniform unit is needed to measure in real-world situations (for example, length, weight, time, capacity).

Second

1. knows that a standard unit of measure is used in real-world situations to describe the measure of an object (for example, length, weight, time, capacity).

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Standard 3: The student estimates measurements in real-world problem situations.

Benchmark MA.B.3.1.1: The student using a variety of strategies, estimates length, widths, time intervals, and money and compares them to actual measurements.

Grade Level Expectations

The student:

Kindergarten

1. uses nonstandard units to estimate, and verifies by measuring, the length and width of common classroom objects.
2. estimates and measures the time of day as day or night; morning, afternoon, or evening; and yesterday, today, or tomorrow.
3. knows which of two daily activities takes more or less time.
4. knows and compares the values of a penny (1 cent), nickel (5 cents), and dime (10 cents).

First

1. estimates, measures, and compares dimensions of an object.
2. estimates and measures the passage of time using before or after; yesterday, today, or tomorrow; day or night; morning, afternoon, or evening; hour or half-hour.
3. knows and compares money values, including the quarter (25 cents), half-dollar (50 cents), and dollar (100 cents).

Second

1. estimates, measures, and compares distances.
2. estimates, measures, and compares the passage of time using minutes, half-hours, and hours.
3. knows and compares amounts of money in coins, to one dollar or more.

Standard 4: The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations.

Benchmark MA.B.4.1.1: The student selects and uses an object to serve as a unit of measure, such as a paper clip, eraser, or marble.

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The student:

Kindergarten

1. uses nonstandard units appropriately (for example, pencil, cubes, scoops of rice).

First

1. selects and uses an appropriate nonstandard unit to measure length, weight, time, and capacity.

Second

1. selects and uses an appropriate nonstandard unit to measure length, distance, weight, time, and capacity.

Benchmark MA.B.4.1.2: The student selects and uses appropriate instruments, such as scales, rulers, clocks, and technology to measure within customary or metric systems.

Grade Level Expectations

The student:

Kindergarten

1. knows various measuring tools for measuring length, weight, or capacity.
2. knows ways to measure time, including calendar, days, weeks, months, and days of week.

First

1. knows appropriate standard tools for measuring linear dimensions, weight, capacity, and temperature.
2. knows appropriate tools (clocks and calendar) for measuring time (including days, weeks, months).

Second

1. knows appropriate standard tools for measuring linear dimensions, weight, capacity, and temperature.
2. knows appropriate tools (clocks and calendar) for measuring time (including days, weeks, months, and years).

Strand C: Geometry and Spatial Sense

Standard 1: The student describes, draws, identifies, and analyzes two- and three-dimensional shapes.

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Benchmark MA.C.1.1.1: The student understands and describes the characteristics of basic two- and three-dimensional shapes.

Grade Level Expectations

The student:

Kindergarten

1. knows two-dimensional shapes (for example, circles, squares, rectangles, triangles), describing similarities and differences.
2. sorts three-dimensional objects by varied attributes (for example, identifying which can roll, stack, or slide).
3. sorts three-dimensional objects according to geometric shapes (for example, cubes, spheres, cylinders, cones).

First

1. knows attributes of two-dimensional shapes (for example, vertices, edges).
2. knows attributes of three-dimensional figures (for example, vertices, curves, faces).
3. sorts two- and three-dimensional figures according to their attributes.

Second

1. describes attributes of two-dimensional shapes using mathematical language (for example, curves, edges, vertices, angles).
2. describes attributes of three-dimensional shapes using mathematical language (for example, curves, vertices, edges, faces, angles).
3. sorts two- and three-dimensional figures according to their attributes.
4. knows the names of two-dimensional and three-dimensional figures presented in various orientations in the environment.

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Standard 2: The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed.

Benchmark MA.C.2.1.1: The student understands basic concepts of spatial relationships, symmetry, and reflections.

Grade Level Expectations

The student:

Kindergarten

1. recognizes symmetry in the environment.
2. uses concrete materials to make symmetrical figures (for example, paper fold, paint blot).
3. matches objects to outlines of their shapes.
4. knows spatial relationships (for example, in or out; above or below; over or under; top, bottom, or middle).
5. identifies left and right hand.

First

1. understands lines of symmetry in two-dimensional shapes (for example, paper folding, ink blot pictures, mirrors).
2. knows shapes that can be combined to form other shapes (for example, using pattern blocks, six triangles make a hexagon).
3. uses concrete materials to construct the reflection of a given shape.
4. follows directions to move or place an object and describes the relationship of objects using positional language (for example, over, to the left of).

Second

1. describes symmetry in two-dimensional shapes.
2. determines lines of symmetry of two-dimensional shapes by using concrete materials.
3. knows congruent shapes.
4. identifies shapes that can be combined or separated (for example, a rectangle can be separated into two triangles).
5. predicts the reflection of a given two-dimensional shape.

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Benchmark MA.C.2.1.2: The student uses objects to perform geometric transformations, including flips, slides, and turns.

Grade Level Expectations

The student:

Kindergarten

1. follows directions to move or place an object in relation to another (for example, next to, to the right of).
2. uses concrete objects to explore slides and turns.

First

1. demonstrates slides and turns using concrete materials.

Second

1. identifies and demonstrates slides, flips, and turns of simple figures using concrete materials.

Standard 3: The student uses coordinate geometry to locate objects in both two- and three-dimensions and to describe objects algebraically.

Benchmark MA.C.3.1.1: The student uses real-life experiences and physical materials to describe, classify, compare, and sort geometric figures, including squares, rectangles, triangles, circles, cubes, rectangular solids, spheres, pyramids, cylinders, and prisms, according to the number of faces, edges, bases, and corners.

Grade Level Expectations

The student:

Kindergarten

1. recognizes, compares, and sorts real-world objects or models of solids.
2. knows the attributes of circles, squares, triangles, and rectangles (for example, edges, corners, curves).

First

1. compares and sorts two-dimensional and three-dimensional real-life objects.
2. knows geometric shapes in real-life situations.
3. compares, describes, and sorts objects according to attributes (for example, corners, curves, faces).

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Second

1. compares and contrasts two- and three-dimensional real-life objects (for example, circle and sphere, square and cube, triangle and pyramid, rectangle and rectangular solid).
2. knows how two shapes or two solids are alike and different.
3. describes and classifies two-dimensional shapes and three-dimensional geometric objects according to the number of bases, faces, edges, and vertices.

Benchmark MA.C.3.1.2: The student plots and identifies positive whole numbers on a number line.

Grade Level Expectations

The student:

Kindergarten

1. 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).

First

1. locates and explains known and unknown numbers on a number line from 0 to 100 or more.

Second

1. locates and explains known and unknown numbers to 1000 or more on a number line.
2. locates and identifies the coordinate points of objects on a coordinate grid (first quadrant).

Strand D: Algebraic Thinking

Standard 1: The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions.

Benchmark MA.D.1.1.1: The student describes a wide variety of classification schemes and patterns related to physical characteristics and sensory attributes, such as rhythm, sound, shapes, colors, numbers, similar objects, similar events.

Grade Level Expectations

The student:

Kindergarten

1. identifies simple patterns of sounds, physical movements, and concrete objects.

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2. sorts and classifies objects by color, shape, size, or kind.
3. identifies objects that do not belong to a particular group (for example, blue lid in set of red lids).

First

1. identifies, describes, and compares patterns using a wide variety of materials and attributes (for example, size, shape, color).
2. describes a pattern rule.
3. explores number patterns on a hundred chart.
4. predicts and extends existing patterns that are concrete or pictorial.

Second

1. recognizes that patterning results from repeating an operation, using a transformation, or making some other change to an attribute.
2. describes a given pattern and explains the pattern rule.
3. identifies number patterns on a hundred chart.

Benchmark MA.D.1.1.2: The student recognizes, extends, generalizes, and creates a wide variety of patterns and relationships using symbols and objects.

Grade Level Expectations

The student:

Kindergarten

1. predicts and extends existing patterns using concrete materials.
2. uses concrete objects to create a pattern.
3. transfers patterns from one medium to another (for example, actions, sounds, or concrete objects).

First

1. uses one attribute to create a pattern (for example, thick or thin, open or closed).
2. transfers patterns from one medium to another (for example, concrete objects to actions or symbols).
3. predicts, extends, and creates patterns.
4. uses a calculator to explore number patterns.

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5. identifies and generates patterns in a list of related number pairs based on real-life situations (for example, T-chart with number of children to number of eyes).

Number of Children	Number of Eyes
1	2
2	4

Second

1. predicts, extends, and creates patterns that are concrete, pictorial or numerical.
2. combines two attributes in creating a pattern (for example, size and color).
3. transfers patterns from one medium to another (for example, pictorial to symbolic).
4. uses a calculator to explore and solve number patterns.
5. identifies patterns in the real-world (for example, repeating, rotational, tessellating, and patchwork).
6. identifies and generates patterns in a list of related number pairs based on real-life situations (for example, T-chart with number of tricycles to number of wheels).

Number of Tricycles	Number of Wheels
1	3
2	6

7. explains generalizations of patterns and relationships.

Standard 2: The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.

Benchmark MA.D.2.1.1: The student understands that geometric symbols (, □) can be used to represent unknown quantities in expressions, equations, and inequalities.

Grade Level Expectations

The student:

Kindergarten

1. knows that symbols can be used to represent missing or unknown quantities (for example, fill in the missing number in 5, 6, □, 8,).

First

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1. solves addition and subtraction sentences where an unknown number is represented by a geometric shape (for example, $2 + \square = 9$).
2. uses concrete objects to solve number sentences with equalities and inequalities (using the symbols $>$, $=$, $<$).

Second

1. solves a variety of number sentences where the missing number is represented by a geometric shape (for example, $10 - \square = 6$).
2. solves a variety of number sentences with equalities and inequalities (using the symbols $>$, $=$, $<$).

Benchmark MA.D.2.1.2: The student uses informal methods to solve real-world problems requiring simple equations that contain one variable.

Grade Level Expectations

The student:

Kindergarten

1. uses informal methods, such as pictures, concrete materials, and role playing, to solve real world problems.
2. uses one-to-one matching to determine if two groups are equal.

First

1. uses concrete objects to solve real-world addition and subtraction problems using one unknown (for example, There are 28 children in this class, and 25 are here today. How many are absent?).

Second

1. uses concrete objects, paper and pencil, or mental mathematics to solve real-world equations with one unknown (such as, There are 28 students in the room, and 16 brought their lunches. How many are buying lunch?).

Strand E: Data Analysis and Probability

Standard 1: The student understands and uses the tools of data analysis for managing information.

Benchmark MA.E.1.1.1: The student displays solutions to problems by generating, collecting, organizing, and analyzing data using simple graphs and charts.

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The student:

Kindergarten

1. knows how to display 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).
2. interprets data exhibited in concrete or pictorial graphs.

First

1. surveys a small group to answer a simple question involving two categories or choices (for example, students who bring lunches or students who buy lunches).
2. records data using concrete materials or pictures.
3. organizes information into a simple pictograph or concrete graph.
4. uses mathematical language to read and interpret data on a simple concrete graph, pictorial graph, or chart.

Second

1. poses questions and collects data to answer questions with two, three, or more categories or choices (for example, favorite ice cream, left handed/right handed).
2. records data using pictures, concrete materials, or tally marks.
3. organizes survey information into a simple pictograph, concrete graph, or chart.
4. uses mathematical language to read and interpret data on a simple concrete graph, pictorial graph, or chart.

Benchmark MA.E.1.1.2: The student displays data in a simple model to use the concepts of range, median, and mode.

Grade Level Expectations

The student:

Kindergarten

1. with teacher direction, 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).

First

1. uses concrete materials, pictures, or graphs to display data and identify range and mode.

Sunshine State Standards
Grade Level Expectations
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Second

1. uses concrete materials, pictures, or graphs to display data and identify range, mode, and median.

Benchmark MA.E.1.1.3: The student analyzes real-world data by surveying a sample space and predicting the generalization onto a larger population through the use of appropriate technology, including calculators and computers.

Grade Level Expectations

The student:

Kindergarten

1. 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).

First

1. discusses a reasonable prediction for a large group using data from a small group.
2. uses a calculator to compare data.
3. explores computer graphing software.

Second

1. predicts the outcome for a larger population by analyzing data from a smaller group.
2. uses a calculator to compare data.
3. constructs a graph using computer software.

Standard 2: The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics.

Benchmark: MA.E.2.1.1: The student understands basic concepts of chance and probability.

Grade Level Expectations

The student:

Kindergarten

1. knows the likelihood of a given situation (for example, Could a lion come visit you? Will we have school tomorrow? Will it rain today?).
2. participates in games or activities dependent upon chance (for example, using spinners or number cubes).

Sunshine State Standards
Grade Level Expectations
Mathematics K-2

First

1. knows the likelihood of a given situation (for example, snowing in South Florida).
2. explains if an event is certain, probable, or impossible.
3. discusses results of games and activities dependent upon chance.

Second

1. knows the likelihood of a given situation (for example, coin toss, spinners, baseball game).
2. knows if an event is certain, probable, or impossible.
3. records results of activities involving chance and makes predictions based upon data (for example, coin flips, number cube rolls, bean toss on area divided into unequal portions).

Benchmark MA.E.2.1.2: The student predicts which simple event is more likely, equally likely, or less likely to occur.

Grade Level Expectations

The student:

Kindergarten

1. 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).

First

1. knows if a given event is more likely, equally likely, or less likely to occur (for example, six blue marbles and two green marbles in a bag).

Second

1. knows if a given event is equally likely, most likely, or least likely to occur (for example, spinners, coin toss, election results).

Standard 3: The student uses statistical methods to make inferences and valid arguments about real-world situations.

Benchmark MA.E. 3.1.1: The student designs a simple experiment to answer a class question, collects appropriate information, and interprets the results using graphical displays of information, such as line graphs, pictographs, and charts.

Grade Level Expectations

The student:

Sunshine State Standards
Grade Level Expectations
Mathematics K-2

Kindergarten

1. 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).
2. describes data displayed concretely or pictorially.

First

1. constructs appropriate questions for a class survey, in a whole group setting.
2. collects data for a survey with two or more categories or choices and creates a class chart or pictograph.
3. analyzes results of a survey as part of a class discussion.

Second

1. constructs appropriate questions for a class survey.
2. collects data for two or more categories and creates a line graph, pictograph, or chart to display results.
3. analyzes and explains orally or in writing the results from a survey.

Benchmark MA.E.3.1.2: The student decides what information is appropriate and how data can be collected, displayed, and interpreted to answer relevant questions.

Grade Level Expectations

The student:

Kindergarten

1. determines through class discussions questions for a simple two-choice survey so that the collected information will answer the questions.
2. knows an appropriate method to display the information.

First

1. determines questions for a two-category survey so that the collected information will answer the question.
2. knows appropriate methods to display and interpret information.

Second

1. determines questions for a survey with two, three, or more categories so that the collected information will be relevant to the questions.
2. knows appropriate methods to display and interpret information.