

### First Grade Mathematics Georgia Performance Standards

#### **Numbers and Operations**

### M1N1 Students will estimate, model, compare, order, and represent whole numbers up to 100.

- a. Represent numbers less than 100 using a variety of models, diagrams, and number sentences. Represent numbers larger than 10 in terms of tens and ones using counters and pictures.
- b. Correctly count and represent the number of objects in a set using numerals.
- c. Compare small sets using the terms greater than, less than, and equal to (<, >, =).

Episode 201

- d. Understand the magnitude and order of numbers up to 100 by making ordered sequences and representing them on a number line.
- e. Exchange equivalent quantities of coins by making fair trades involving combinations of pennies, nickels, dimes, and quarters, and count out a combination needed to purchase items less than a dollar.

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Episode 216

f. Identify bills (\$1, \$5, \$10, \$20) by name and value and exchange equivalent quantities by making fair trades involving combinations of bills and count out a combination of bills needed to purchase items less than twenty dollars. Episode 216

# M1N2 Understand place value notation for the numbers between 1 and 100. (Discussions may allude to 3-digit numbers to assist in understanding place value.)

- a. Determine which multiple of ten a given number is nearest (rounding) using tools such as a sequential number line or hundreds chart to assist in estimating.
- b. Represent collections of less than 30 objects with 2-digit numbers and understand the meaning of place value. (Make sure that students, when given a number like 27, initially describe it as 2 tens and 7 ones, and only later use standard language, twenty-seven, when talking about the number.)

### M1N3 Students will add and subtract numbers less than 100 as well as understand and use the inverse relationship between addition and subtraction.

a. Identify one more than, one less than, 10 more than, and 10 less than a given number.

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b. Skip-count by 2's, 5's, and 10's forward and backwards – to and from numbers up to 100.

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c. Compose/decompose numbers up to 10 — "break numbers apart" (e.g., 8 can be represented as 4+4, 3+5, 5+2+1, or 10-2). Decompose numbers

between 11 and 19 as one ten and the appropriate number of ones.

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Episode 210

Episode 212

Episode 215

Episode 216

Episode 217

- d. Understand a variety of situations to which subtraction may apply: taking away from a set, comparing two sets, and determining how many more or how many less.
- e. Understand addition and subtraction number combinations using strategies such as counting on, counting back, doubles, and making tens.
- f. Know the single-digit addition facts to 18 and corresponding subtraction facts with understanding and fluency. (Use strategies such as relating to facts already known, applying the commutative property, and grouping facts into families.)
- g. Apply addition and subtraction to 2-digit numbers without regrouping (e.g., 15 + 4, 80 60, 56 + 10, 100 30, 58 + 5).

Episode 209

Episode 210

h. Solve and create word problems involving addition and subtraction to 100 without regrouping. Use words, pictures, and concrete models to interpret story problems and reflect the combining of sets as addition and taking away or comparing elements of sets as subtraction.

## M1N4 Students will count collections of up to 100 objects by dividing them into equal parts and represent the results using words, pictures, or diagrams.

- a. Use informal strategies to share objects equally between two to five people.
- b. Build number patterns, including concepts of even and odd, using various concrete representations. (Examples of concrete representations include a hundreds chart, ten-grid frame, place-value chart, number line, counters, or other objects.)
- c. Identify, label, and relate fractions (halves, fourths) as equal parts of a whole using pictures and models.

#### Measurement

M1M1Students will compare and/or order the length, weight, or capacity of two or more objects by using direct comparison or a nonstandard unit.

a. Directly compare length, weight, and capacity of concrete objects.

Episode 201

b. Estimate and measure using a non-standard unit that is smaller than the object to be measured.

Episode 202

c. Measure with a tool by creating a "ruled" stick, tape, or container by marking off ten segments of the repeated single unit.

#### M1M2Students will develop an understanding of the measurement of time.

- a. Tell time to the nearest hour and half hour and understand the movement of the minute hand and how it relates to the hour hand.
- b. Begin to understand the relationship of calendar time by knowing the number of days in a week and months in a year.

Episode 203

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Episode 218

c. Compare and/or order the sequence or duration of events (e.g., shorter/longer and before/after).

Episode 211

#### Geometry

M1G1 Students will study and create various two and three-dimensional figures and identify basic figures (squares, circles, triangles, and rectangles) within them.

- a. Build, draw, name, and describe triangles, rectangles, pentagons, and hexagons.
- b. Build, represent, name, and describe cylinders, cones, and rectangular prisms (objects that have the shape of a box). Episode 215
- c. Create pictures and designs using shapes, including overlapping shapes. Episode 210

M1G2 Students will compare, contrast, and/or classify geometric shapes by the common attributes of position, shape, size, number of sides, and number of corners.

M1G3 Students will arrange and describe objects in space by proximity, position, and direction (near, far, below, above, up, down, behind, in front of, next to, and left or right of).