

First Grade

Standard	Everyday Math Goal	Ohio Benchmark
Number, Number Sense, and Operations	Goal 1. Count on by 1s, 2s, 5s, and 10s past 100 and back by 1s from any number less than 100 with and without number grids, number lines, and calculators.	A. Use place value concepts to represent whole numbers using numerals, words and physical models F. Count, using numerals and ordinal numbers
Number, Number Sense, and Operations	Goal 2. Count collections of objects accurately and reliably; estimate the number of objects in a collection.	F. Count, using numerals and ordinal numbers
Number, Number Sense, and Operations	Goal 3. Read, write, and model with manipulatives whole numbers up to 1,000; identify places in such numbers and the values of the digits in those places.	A. Use place value concepts to represent whole numbers using numerals, words and physical models
Number, Number Sense, and Operations	Goal 4. Use manipulatives and drawings to model halves, thirds, and fourths as equal parts of a region or a collection; describe the model.	C. Represent commonly used fractions using words and physical models.
Number, Number Sense, and Operations	Goal 5. Use manipulatives to identify and model odd and even numbers	A. Use place value concepts to represent whole numbers using numerals, words and physical models B. Recognize, classify, compare and order whole numbers
Number, Number Sense, and Operations	Goal 6. Use manipulatives, drawings, tally marks, and numerical expressions involving addition and subtraction of 1- or 2-digit numbers to give equivalent names for whole numbers up to 100.	G. Model, represent and explain addition as combining sets and counting on. H. Model, represent and explain subtraction as comparison, take-away and part-to-whole
Number,	Goal 7. Compare and order whole numbers up to	B. Recognize, classify, compare and order whole

<p>Number Sense, and Operations</p>	<p>1,000.</p>	<p>numbers</p>
<p>Number, Number Sense, and Operations</p>	<p>Goal 1. Demonstrate proficiency with +/- 0, +/- 1, doubles, and sum equals-ten addition and subtraction facts such as $6 + 4 = 10$ and $10 - 7 = 3$.</p>	<p>L Demonstrate fluency in adding and subtracting multiples of 10, and recognize combinations that make 10</p>
<p>Number, Number Sense, and Operations</p>	<p>Goal 2. Use manipulatives, number grids, tally marks, mental arithmetic, and calculators to solve problems involving the addition and subtraction of 1-digit whole numbers with 1- or 2-digit whole numbers; calculate and compare the values of combinations of coins.</p>	<p>L. Demonstrate fluency in adding and subtracting multiples of 10, and recognize combinations that make 10</p> <p>M. Add and subtract two-digit numbers with and without regrouping</p>
<p>Number, Number Sense, and Operations</p>	<p>Goal 3. Estimate reasonableness of answers to basic fact problems (e.g., Will $7 + 8$ be more or less than 10?).</p>	<p>G. Model, represent and explain addition as combining sets and counting on.</p> <p>H. Model, represent and explain subtraction as comparison, take-away and part-to-whole</p> <p>K. Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions.</p> <p>L Demonstrate fluency in adding and subtracting multiples of 10, and recognize combinations that make 10</p>
<p>Number, Number Sense, and Operations</p>	<p>Goal 4. Identify change-to-more, change-to-less, comparison, and parts-and-total situations.</p>	<p>G. Model, represent and explain addition as combining sets and counting on.</p> <p>I. Model, represent and</p>

First Grade

		<p>explain subtraction as comparison, take-away and part-to-whole</p> <p>K. Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions.</p> <p>L. Demonstrate fluency in adding and subtracting multiples of 10, and recognize combinations that make 10</p>
Measurement	<p>Goal 1. Use nonstandard tools and techniques to estimate and compare weight and length; measure length with standard measuring tools.</p>	<p>A. Explain the need for standard units of measure.</p> <p>D. Apply measurement techniques to measure length, weight and volume (capacity).</p> <p>E. Recognize that using different units of measurement will yield different numbers for the same measurement.</p>
Number, Number Sense, and Operations	<p>Goal 2. Know and compare the value of pennies, nickels, dimes, quarters, and dollar bills; make exchanges between coins.</p>	<p>D. Determine the value of a collection of coins and dollar bills.</p>
Measurement	<p>Goal 3. Identify a thermometer as a tool for measuring temperature; read temperatures on Fahrenheit and Celsius thermometers to the nearest 10°.</p>	<p>none</p>
Measurement	<p>Goal 4. Use a calendar to identify days, weeks, months, and dates; tell and show time to the nearest half and quarter hour on an analog clock.</p>	<p>B. Select appropriate units for length, weight, volume (capacity) and time, using:</p> <ul style="list-style-type: none"> • objects; i.e., non-standard units; • U.S. customary units: inch, foot, yard, ounce, pound, cup, quart, gallon, minute, hour, day, week and year; • metric units: centimeter, meter, gram and liter.

First Grade

		<p>C. Develop common referents for units of measure for length, weight, volume (capacity) and time to make comparisons and estimates.</p>
<p>Measurement</p>	<p>Goal 6. Tell and show time to the nearest five minutes on an analog clock; tell and write time in digital</p>	<p>B. Select appropriate units for length, weight, volume (capacity) and time, using:</p> <ul style="list-style-type: none"> • objects; i.e., non-standard units; • U.S. customary units: inch, foot, yard, ounce, pound, cup, quart, gallon, minute, hour, day, week and year; • metric units: centimeter, meter, gram and liter. <p>C. Develop common referents for units of measure for length, weight, volume (capacity) and time to make comparisons and estimates.</p>
<p>Geometry and Spatial Sense</p> <p><i>(Benchmarks D and F are not EM goals)</i></p>	<p>Goal 1. Identify and describe plane and solid figures including circles, triangles, squares, rectangles, spheres, cylinders, rectangular prisms, pyramids, cones, and cubes.</p>	<p>A. Describe and create plane figures: circle, rectangle, square, triangle, hexagon, trapezoid, parallelogram and rhombus, and identify them in the environment.</p> <p>B. Describe solid objects: cube, rectangular prism, sphere, cylinder, cone and pyramid, and identify them in the environment.</p> <p>E. Recognize two- and three-dimensional objects from different positions.</p>
<p>Geometry and Spatial Sense</p>	<p>Goal 2. Identify shapes having line symmetry; complete line-symmetric shapes or designs.</p>	<p>G. Identify and draw figures with line symmetry.</p>
<p>Patterns, Functions, and</p>	<p>Goal 1. Extend, describe, and create numeric, visual, and concrete</p>	<p>A. Sort, classify and order objects by size, number and other properties, and</p>

<p>Algebra</p> <p><i>(Benchmark G is not an EM goal)</i></p>	<p>patterns; solve problems involving function machines, "What's My Rule?" tables, and Frames and Arrows diagrams.</p>	<p>describe the attributes used.</p> <p>B. Extend sequences of sounds and shapes or simple number patterns, and create and record similar patterns.</p> <p>C. Create and extend patterns, and describe the rule in words.</p> <p>D. Model problem situations, using objects, pictures, numbers and other symbols.</p>
<p>Patterns, Functions, and Algebra</p>	<p>Goal 2. Read, write, and explain expressions and number sentences using the symbols +, -, and = and the symbols < and > with cues; solve equations involving addition and subtraction.</p>	<p>E. Solve open sentences and explain strategies.</p> <p>F. Represent an unknown quantity as a variable using a symbol, such as \square, Δ, O</p>
<p>Patterns, Functions, and Algebra</p>	<p>Goal 3. Apply the Commutative Property of Addition and the Additive Identity to basic addition fact problems.</p>	<p>none</p>
<p>Data Analysis and Probability</p>	<p>Goal 1. Collect and organize data to create tally charts, tables, bar graphs, and line plots.</p>	<p>A. Pose questions and gather data about everyday situations and familiar objects.</p> <p>B. Sort and classify objects by attributes, and organize data into categories in a simple table or chart.</p> <p>C. Represent data using objects, picture graphs and bar graphs.</p>
<p>Data Analysis and Probability</p>	<p>Goal 2. Use graphs to answer simple questions and draw conclusions; find the maximum and minimum of a data set.</p>	<p>A. Pose questions and gather data about everyday situations and familiar objects.</p> <p>C. Represent data using objects,</p>

First Grade

		picture graphs and bar graphs.
Data Analysis and Probability	Goal 3. Describe events using <i>certain, likely, unlikely, impossible</i> and other basic probability terms.	D. Describe the probability of chance events as more, less or equally likely to occur.