

# First Grade – Everyday Mathematics Goals Aligned with NYS Standards

## Strand: NUMBER AND NUMERATION

**Program Goal: Understand the meanings, uses, and representations of numbers.**

Content	EDM Grade Level Goal	NYS Standard(s)
Rote Counting	<b>Goal 1.</b> 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.	<b>1.N.4</b> Count by 1's to 100 <b>1.N.5</b> Skip count by 10's to 100 <b>1.N.6</b> Skip count by 5's to 50 <b>1.N.7</b> Skip count by 2's to 20 <b>1.N.8</b> Verbally count from a number other than one by 1's <b>1.N.9</b> Count backwards from 20 by 1's <b>1.N.20</b> Name the number before and the number after a given number, and name the number(s) between two given numbers up to 100 (with and without the use of a number line or a hundreds chart) <b>1.A.1</b> Determine and discuss patterns in arithmetic (what comes next in a repeating pattern, using numbers or objects)
Rational Counting	<b>Goal 2.</b> Count collections of objects accurately and reliably; estimate the number of objects in a collection.	<b>1.N.1</b> Count the items in a collection and know the last counting word tells how many items are in the collection (1 to 100) <b>1.N.2</b> Count out (produce) a collection of a specified size (10 to 100 items), using groups of 10 <b>1.N.3</b> Quickly see and label with a number, collections of 1 to 10 <b>1.N.30</b> Estimate the number in a collection to 50 and then compare by counting the actual items in the collection
Place value and notation	<b>Goal 3.</b> 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.	<b>1.N.10</b> Draw pictures or other informal symbols to represent a spoken number up to 20 <b>1.N.11</b> Identify that spacing of the same number of objects does not effect the quantity (conservation) <b>1.N.13</b> Read and write numbers to 100 <b>1.N.15</b> Explore and use place value <b>1.N.17</b> Develop an initial understanding of the base ten system: 10 ones = 1 ten / 10 tens = 1 hundred
Meanings and uses of fractions	<b>Goal 4.</b> Use manipulatives and drawings to model halves, thirds, and fourths as equal parts of a region or a collection; describe the model.	<b>1.R.6</b> Use mathematics to show and understand social phenomena (i.e., count and represent sharing cookies between friends) <b>1.PS.1</b> Explore, examine, and make observations about a social problem or mathematical situation <b>1.PS.3</b> Act out or model with manipulatives activities involving mathematical content from literature and/or story telling <b>1.PS.4</b> Formulate problems and solutions from everyday situations (i.e., counting the number of children in the class or using the calendar to teach counting) <b>1.PS.9</b> Use drawings/pictures to model the action in problems <b>1.CM.2</b> Verbally support their reasoning and answer <b>1.CM.3</b> Share mathematical ideas through the manipulation of objects, drawings, pictures, charts, and symbols in both written and verbal explanations
Number theory	<b>Goal 5.</b> Use manipulatives to identify and model odd and even numbers.	<b>1.PS.8</b> Use manipulatives (i.e., tiles, blocks) to model the action in problems <b>1.RP.5</b> Justify general claims, using manipulatives <b>1.CM.3</b> Share mathematical ideas through the manipulation of objects, drawings, pictures, charts, and symbols in both written and verbal explanations <b>1.RP.2</b> Recognize that mathematical ideas need to be supported by evidence

**Program Goal: Understand equivalent names for numbers.**

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Content	EDM Grade Level Goal	NYS Standard(s)
Equivalent names for whole numbers	<b>Goal 6.</b> 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.	<b>1.N.14</b> Read the number words <i>one, two, three...ten</i> <b>1.N.18</b> Use a variety of strategies to compose and decompose one-digit numbers <b>1.N.19</b> Understand the commutative property of addition (Turn-Around-Facts) <b>1.RP.5</b> Justify general claims, using manipulatives <b>1.CM.3</b> Share mathematical ideas through the manipulation of objects, drawings, pictures, charts, and symbols in both written and verbal explanations
Equivalent names for fractions, decimals, and percents		

### Program Goal: Understand common numerical relations.

Content	EDM Grade Level Goal	NYS Standard(s)
Comparing and ordering numbers	<b>Goal 7.</b> Compare and order whole numbers up to 1,000.	<b>1.N.12</b> Arrange objects in size order (increasing and decreasing) <b>1.N.16</b> Compare and order whole numbers up to 100 <b>1.N.20</b> Name the number before and the number after a given number, and name the number(s) between two given numbers up to 100 (with and without the use of a number line or a hundreds chart) <b>1.N.22</b> Use the words higher, lower, greater, and less to compare two numbers <b>1.N.23</b> Use and understand verbal ordinal terms, first to twentieth

## Strand: OPERATIONS AND COMPUTATIONS

### Program Goal: Compute accurately.

Content	EDM Grade Level Goal	NYS Standard(s)
Addition and subtraction facts	<b>Goal 1.</b> Demonstrate proficiency with $+/ - / 0$ , $+/ - 1$ , doubles, and sum-equals-ten addition and subtraction facts such as $6 + 4 = 10$ and $10 - 7 = 3$ .	<b>1.N.19</b> Understand the commutative property of addition (Turn-Around-Facts) <b>1.N.20</b> Name the number before and the number after a given number, and name the number(s) between two given numbers up to 100 (with and without the use of a number line or a hundreds chart) <b>1.N.25</b> Represent addition and subtraction word problems and their solutions as number sentences <b>1.N.28</b> Demonstrate fluency and apply addition and subtraction facts to and including 10
Addition and subtraction procedures	<b>Goal 2.</b> 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.	<b>1.N.19</b> Understand the commutative property of addition (Turn-Around-Facts) <b>1.N.24</b> Develop and use strategies to solve addition and subtraction word problems <b>1.PS.8</b> Use manipulatives (i.e., tiles, blocks) to model the action in problems <b>1.M.6</b> Use different combinations of coins to make money amounts up to 25 cents

### Program Goal: Make reasonable estimates.

Content	EDM Grade Level Goal	NYS Standard(s)
Computational estimations	<b>Goal 3.</b> Estimate reasonableness of answers to basic fact problems (e.g., Will $7 + 8$ be more or less than 10?)	<b>1.N.25</b> Represent addition and subtraction word problems and their solutions as number sentences <b>1.N.28</b> Demonstrate fluency and apply addition and subtraction facts to and including 10

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### Everyday Mathematics Goals Aligned with NYS Standards

**Program Goal: Understand meanings of operations.**

Content	EDM Grade Level Goal	NYS Standard(s)
Models for the operations	<b>Goal 4.</b> Identify change-to-more, change-to-less, comparison, and parts-and-total situations.	<b>1.N.21</b> Use before, after, or between to order numbers to 100 (with or without the use of a number line) <b>1.N.22</b> Use the words higher, lower, greater, and less to compare two numbers <b>1.N.29</b> Understand that different parts can be added to get the same whole

## Strand: PATTERNS, FUNCTIONS, AND ALGEBRA

**Program Goal: Understand patterns and functions.**

Content	EDM Grade Level Goal	NYS Standard(s)
Patterns and functions	<b>Goal 1.</b> Extend, describe, and create numeric, visual, and concrete patterns; solve problems involving function machines, “What’s My Rule?” tables, and Frames-and-Arrows diagrams.	<b>1.N.20</b> Name the number before and the number after a given number, and name the number(s) between two given numbers up to 100 (with and without the use of a number line or a hundreds chart) <b>1.N.27</b> Use a variety of strategies to solve addition and subtraction problems with one- and two-digit numbers without regrouping <b>1.A.1</b> Determine and discuss patterns in arithmetic (what comes next in a repeating pattern, using numbers or objects)

**Program Goal: Use algebraic notation to represent and analyze situations and structures.**

Content	EDM Grade Level Goal	NYS Standard(s)
Algebraic notation and solving number sentences	<b>Goal 2.</b> Read, write, and explain expressions and number sentences using the symbols +, -, and = and the symbols > and < with cues; solve equations involving addition and subtraction.	<b>1.A.1</b> Determine and discuss patterns in arithmetic (what comes next in a repeating pattern, using numbers or objects) <b>1.N.22</b> Use the words higher, lower, greater, and less to compare two numbers <b>1.N.24</b> Develop and use strategies to solve addition and subtraction word problems <b>1.N.25</b> Represent addition and subtraction word problems and their solutions as number sentences <b>1.N.26</b> Create problem situations that represent a given number sentence <b>1.N.27</b> Use a variety of strategies to solve addition and subtraction problems with one- and two-digit numbers without regrouping
Properties of arithmetic operations	<b>Goal 3.</b> Apply the Commutative Property of Addition and the Additive Identity to basic addition fact problems.	<b>1.N.19</b> Understand the commutative property of addition (Turn-Around-Facts)

## Strand: GEOMETRY

**Program Goal: Investigate characteristics and properties of two- and three-dimensional geometric shapes.**

Content	EDM Grade Level Goal	NYS Standard(s)
Lines and angles		
Plane and solid figures	<b>Goal 1.</b> Identify and describe plane and solid figures including circles, triangles, squares, rectangles, spheres, cylinders, rectangular prisms, pyramids, cones, and cubes.	<b>1.G.2</b> Recognize, name, describe, create, sort, and compare two-dimensional and three-dimensional shapes <b>1.G.5</b> Recognize geometric shapes and structures in the environment

## First Grade –

### Everyday Mathematics Goals Aligned with NYS Standards

**Program Goal: Apply transformations and symmetry in geometric situations.**

Content	EDM Grade Level Goal	NYS Standard(s)
Transformations and symmetry	<b>Goal 2.</b> Identify shapes having line symmetry; complete line-symmetric shapes or designs.	<b>1.G.4</b> Identify symmetry in two-dimensional shapes

#### **Geometry Indicators not appearing in EDM Goals:**

Shapes	None listed	<b>1.G.1</b> Match shapes and parts of shapes to justify congruency
Transformational Geometry	None listed	<b>1.G.3</b> Experiment with slides, flips, and turns of two-dimensional shapes

## Strand: MEASUREMENT AND REFERENCE FRAMES

**Program Goal: Understand the systems and processes of measurement; use appropriate techniques, tools, units, and formulas in making measurements.**

Content	EDM Grade Level Goal	NYS Standard(s)
Length, weight, and angles	<b>Goal 1.</b> Use nonstandard tools and techniques to estimate and compare weight and length; measure length with standard measuring tools.	<b>1.M.1</b> Recognize length as an attribute that can be measured <b>1.M.2</b> Use non-standard units (including finger lengths, paper clips, students' feet and paces) to measure both vertical and horizontal lengths <b>1.M.3</b> Informally explore the standard unit of measure, inch <b>1.M.11</b> Select and use non-standard units to estimate measurements
Area, perimeter, volume, and capacity		
Units and systems of measurement		
Money	<b>Goal 2.</b> Know and compare the value of pennies, nickels, dimes, quarters, and dollar bills; make exchanges between coins.	<b>1.M.4</b> Know vocabulary and recognize coins (penny, nickel, dime, quarter) <b>1.M.5</b> Recognize the cent notation as ¢ <b>1.M.6</b> Use different combinations of coins to make money amounts up to 25 cents

**Program Goal: Use and understand reference frames.**

Content	EDM Grade Level Goal	NYS Standard(s)
Temperature	<b>Goal 3.</b> Identify a thermometer as a tool for measuring temperature; read temperatures on Fahrenheit and Celsius thermometers to the nearest 10°	<b>1.N.4</b> Count by 1's to 100 <b>1.N.5</b> Skip count by 10's to 100 <b>1.N.6</b> Skip count by 5's to 50 <b>1.N.22</b> Use the words higher, lower, greater, and less to compare two numbers <b>1.PS.1</b> Explore, examine, and make observations about a social problem or mathematical situation <b>1.PS.2</b> Interpret information correctly, identify the problem, and generate possible solutions <b>1.RP.2</b> Recognize that mathematical ideas need to be supported by evidence <b>1.CM.6</b> Use appropriate mathematical terms, vocabulary, and language <b>1.CN.7</b> Recognize the presence of mathematics in their daily lives <b>1.R.3</b> Use standard and non-standard representations
Time	<b>Goal 4.</b> 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.	<b>1.M.7</b> Recognize specific times (morning, noon, afternoon, evening) <b>1.M.8</b> Tell time to the hour, using both digital and analog clocks <b>1.M.9</b> Know the days of the week and months of the year in sequence <b>1.M.10</b> Classify months and connect to seasons and other events

## First Grade –

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#### Strand: DATA AND CHANCE

**Program Goal: Select and create appropriate graphical representations of collected or given data.**

Content	EDM Grade Level Goal	NYS Standard(s)
Data collection and representation	<b>Goal 1.</b> Collect and organize data to create tally charts, tables, bar graphs, and line plots.	<b>1.S.1</b> Pose questions about themselves and their surroundings <b>1.S.2</b> Collect and record data related to a question <b>1.S.3</b> Display data in simple pictographs for quantities up to 20 with units of one <b>1.S.4</b> Display data in bar graphs using concrete objects with intervals of one

**Program Goal: Analyze and interpret data.**

Content	EDM Grade Level Goal	NYS Standard(s)
Data Analysis	<b>Goal 2.</b> Use graphs to answer simple questions and draw conclusions; find the maximum and minimum of a data set.	<b>1.S.1</b> Pose questions about themselves and their surroundings <b>1.S.2</b> Collect and record data related to a question <b>1.S.3</b> Display data in simple pictographs for quantities up to 20 with units of one <b>1.S.4</b> Display data in bar graphs using concrete objects with intervals of one <b>1.S.6</b> Interpret data in terms of the words: most, least, greater than, less than, or equal to <b>1.S.7</b> Answer simple questions related to data displayed in pictographs (i.e., category with most, how many more in a category compared to another, how many all together in two categories) <b>1.S.9</b> Construct a question that can be answered by using information from a graph

**Program Goal: Understand and apply basic concepts of probability.**

Content	EDM Grade Level Goal	NYS Standard(s)
Qualitative probability	<b>Goal 3.</b> Describe events using <i>certain, likely, unlikely, impossible</i> and other basic probability terms.	<b>1.S.8</b> Discuss conclusions and make predictions in terms of the words likely and unlikely <b>1.S.9</b> Construct a question that can be answered by using information from a graph

**Statistics and Probability Indicators not appearing in EDM Goals:**

<i>Organization and Display of Data</i>	<i>None listed</i>	<i>1.S.5 Use Venn diagrams to sort and describe data</i>
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