

Mathematical Practices	Research-based Instructional Practices
<ul style="list-style-type: none"> <input type="checkbox"/> Make sense of problems and persevere in solving them. <input type="checkbox"/> Reason abstractly and quantitatively. <input type="checkbox"/> Construct viable arguments and critique the reasoning of others. <input type="checkbox"/> Model with mathematics. <input type="checkbox"/> Use appropriate tools strategically. <input type="checkbox"/> Attend to precision. <input type="checkbox"/> Look for and make use of structure. <input type="checkbox"/> Look for and express regularity in repeated reasoning. 	<ul style="list-style-type: none"> <input type="checkbox"/> Give students access to a variety of activity settings such as individual, teacher-led small group, whole group, student group work, and choice. <input type="checkbox"/> Encourage meaningful peer interactions and promote peer conversations. Avoid dominating classroom conversations by maintaining a balance of teacher and student talk. <input type="checkbox"/> Provide opportunities for students to make predictions and brainstorm consequences. Encourage them to discover and evaluate their own answers. <input type="checkbox"/> Help students monitor their own thinking by showing them how you approach a problem and the questions you ask yourself to monitor your own thinking process. Think out loud. <input type="checkbox"/> Help students explain, justify, or demonstrate their own learning by offering opportunities to reflect on, plan, and share their thinking. <input type="checkbox"/> Use scaffolded instruction to asking open-ended questions, engage in feedback loops, and probe deeply into students thinking and understanding. Balance with didactic instruction. <input type="checkbox"/> Provide needed practice and repetition, models, demonstrations, information and guidance using didactic instruction.

Prerequisites
 Last year, teachers spent a large majority of the instructional time on these focus skills.
 This year, students should have a strong foundation in the following areas:

Resources:
 *GoMath! *Ready Common Core *V-Math *V-Math Live *i-Ready Teacher Toolbox, etc. *SchoolsPLP
 *AL COS Standards

Major Focus	Supporting Work	Additional Work (Minor)
Know number names to 20 and the count sequence to 100. Count to tell the number of objects. Compare numbers to ten using more/less, bigger/smaller. Understand addition as putting together and adding to and understand subtraction as taking apart and taking from. Recognize numbers 11–19 as one ten and some ones.	Classify objects and count the number of objects in categories.	Describe and compare measurable attributes. Identify and describe shapes and solids. Analyze, compare, create, and compose shapes.



First Grade First Quarter Pacing Guide

Mathematics

Introduction to Your Mathematics Pacing Guide

Weeks 1-3 Kindergarten Review Standards
Week 4-9 First Grade Standards

Operations & Algebraic Thinking	Number & Operations in Base Ten	Measurement & Data	Geometry
<p><u>Patterns/Go Math Ch. 6</u> K.OA.13. Duplicate and extend simple patterns using concrete objects. (*new standard)</p> <ul style="list-style-type: none"> <input type="checkbox"/> I can copy and continue patterns using objects. <p>1.OA.9: Reproduce, extend, and create patterns and sequences of numbers using a variety of materials. (*new standard)</p> <ul style="list-style-type: none"> <input type="checkbox"/> I can copy, continue and make patterns using different materials. <p>• Lesson 6.1</p>	<p><u>Go Math Ch. 6-7</u> K.FC.4: Connect counting to cardinality using a variety of concrete objects.</p> <ol style="list-style-type: none"> a. Say the number names in consecutive order when counting objects. b. Indicate that the last number name said tells the number of objects counted in a set. c. Indicate that the number of objects in a set is the same regardless of their arrangement or the order in which they were counted. d. Explain that each successive number name refers to a quantity that is one larger. <ul style="list-style-type: none"> <input type="checkbox"/> M.K.4.1: I can define number and counting. <input type="checkbox"/> M.K.4.2: I can identify correct number of objects for a given number up to 20. <input type="checkbox"/> M.K.4.3: I can identify different size groups of objects up to 10. <p>K.FC.5: Count to answer “how many?” questions.</p> <ol style="list-style-type: none"> a. Count using no more than 20 concrete objects arranged in a line, a rectangular array, or a circle. b. Count using no more than 10 concrete objects in a scattered configuration. c. Draw the number of objects that matches a given numeral from 0 to 20. <ul style="list-style-type: none"> <input type="checkbox"/> M.K.5.1: I can define how many, all together, and in all. <input type="checkbox"/> M.K.5.2: I can demonstrate one to one correspondence. <input type="checkbox"/> M.K.5.3: I can count to 20 by ones. <p>K.FC.6: Orally identify whether the number of objects in one group is greater/more than, less/fewer than, or equal/the same as the number of objects in another group, in groups containing up to 10 objects, by using matching, counting, or other strategies.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.K.6.1: I can define greater than, less than, and equal to. <input type="checkbox"/> M.K.6.2: I can count to 20 by ones. <input type="checkbox"/> M.K.6.3: I can count objects up to ten. 	<p><u>Go Math Ch. 9 (Lessons 1-5) and Ch. 10</u> K.M.16. Identify and describe measurable attributes (length, weight, height) of a single object using vocabulary such as long/short, heavy/light, or tall/short.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.K.14.1: I can define length and weight. <input type="checkbox"/> M.K.14.2: I can explore objects in relationship to length and weight. <p>K.M.17: Directly compare two objects with a measurable attribute in common to see which object has “more of” or “less of” the attribute and describe the difference. Example: Directly compare the heights of two children and describe one child as “taller” or “shorter.”</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.K.15.1: I can use vocabulary related to length and weight (longer, shorter, heavier, lighter). <input type="checkbox"/> M.K.15.2: I can identify objects by length and weight (shortest pencil, heaviest rock). <input type="checkbox"/> M.K.15.3: I can sort objects according to measurable attributes. <p>K.DA.15: Classify objects into given categories of 10 or fewer; count the number of objects in each category and sort the categories by count.</p> <ol style="list-style-type: none"> a. Categorize data on Venn diagrams, pictographs, and “yes-no” charts using real objects, symbolic representations, or pictorial representations. <ul style="list-style-type: none"> <input type="checkbox"/> M.K.16.1: I can identify more and less when given two groups of objects. <p>1.M. 17: Order three objects by length; compare the lengths of two objects indirectly by using a third object. Schools PLP Lessons 148,149,150 Ready Common Core Lesson 31,32</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.1.15.1: I can define length. <input type="checkbox"/> M.1.15.2: I can use vocabulary related to length (longer, shorter, longest, shortest, taller). <input type="checkbox"/> M.1.15.3: I can identify objects by length (shortest pencil, tallest boy). <input type="checkbox"/> M.1.15.4: I can sort objects according to length (sort short pencils from long pencils). <input type="checkbox"/> M.1.15.5: I can explore objects in relationship to length. 	<p><u>Patterns</u> *Review these Kindergarten standards while working with patterns (1.OA.9):</p> <p>K.G.19: Correctly name shapes regardless of their orientations or overall sizes.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.K.18.1: I can recognize shapes. <input type="checkbox"/> M.K.18.2: I can sort shapes with different attributes (sort different size or color squares, circles, triangles, rectangles or hexagons). Ready Common Core Lesson 26 <p>K.G.20: Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.K.20.1: I can define similar and different. <input type="checkbox"/> M.K.20.2: I can use vocabulary related to two-dimensional shapes and three-dimensional figures (vertices (corners), faces (flat surfaces), edges, sides, angles). <input type="checkbox"/> M. K.20.3: I can recognize vocabulary related to two-dimensional shapes and three-dimensional figures. <input type="checkbox"/> M. K.20.4: I can identify two-dimensional shapes and three-dimensional figures. <input type="checkbox"/> M. K.20.5: I can identify shapes. Ready Common Core Lesson 27 <p>*Introduce these 1st grade standards while working with patterns (1.OA.9):</p> <p>1.G.21. Build and draw shapes which have defining attributes.</p> <ol style="list-style-type: none"> a. Distinguish between defining attributes and non-defining attributes. Schools PLP Lessons 55,56,57,58,60,61,62 Ready Common Core Lesson 27 <ul style="list-style-type: none"> <input type="checkbox"/> M. 1.19.3: I can identify two-dimensional shapes. <input type="checkbox"/> M. 1.19.4: I can sort two-dimensional shapes. <input type="checkbox"/> M. 1.19.5: I can identify basic attributes. Examples: color, shape, size

K.FC.1. Count forward orally from 0 to 100 by ones and by tens. Count backward orally from 10 to 0 by ones.

- M.K.1.1: I can count to 50 by ones.
- M.K.1.2: I can count to 50 by tens.
- M.K.1.3: I can count to 20 by ones.
- M.K.1.4: I can count to 10 by ones.
- M.K.1.5: I can mimic counting by tens.
- M.K.1.6: I can mimic counting by ones.

1.NBT.10: Extend the number sequence from 0 to 120.

- a. Count forward and backward by ones, starting at any number less than 120.
- b. Read numerals from 0 to 120.
- c. Write numerals from 0 to 120.
- d. Represent a number of objects from 0 to 120 with a written numeral.

[Schools PLP Lessons](#)

[2,3,4,5,6,7,8,9,10,11,12,13,14,15,86,164](#)

[Ready Common Core Lesson 18](#)

- M.1.9.1: I can write numerals from 0 to 20.
- M.1.9.2: I can recognize numerals to 100.
- M.1.9.3: I can match the numeral to the number objects or picture of objects.
- M.1.9.4: I can count to 100 by ones.
- M.1.9.5: I can count to 20 by ones.
- M.1.9.6: I can identify and name numerals 1-9.
- M.1.9.7: I can trace numerals 1-9.

• Lessons 6.1-6.2

1. NBT.11: Explain that the two digits of a two-digit number represent amounts of tens and ones.

- a. Identify a bundle of ten ones as a “ten.”
- b. Identify the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- c. Identify the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 as one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

[Schools PLP Lessons](#)

[17,18,19,20,158,159,160,161,162,163](#)

[Ready Common Core Lessons 12,17,19,20,](#)

[21,22,23,24,25](#)

- M.1.10.1: I can match the number in the ones and tens position to a pictorial representation or manipulative of the value.
- M.1.10.2: I can represent numbers with multiple models.
- M.1.10.3: I can count to 100 by tens.
- M.1.10.4: I can count 10 objects.
- M.1.10.5: I can count to 10 by ones.
- M.1.10.6: I can name numerals 0 to 19.

• Lessons 6.2-6.7

• Lessons 9.1-9.2

1.M.18: Determine the length of an object using non-standard units with no gaps or overlaps, expressing the length of the object with a whole number.

[Schools PLP Lessons 147,151,152,153,154,155,156](#)
[Ready Common Core Lesson 33](#)

- M.1.16.1: I can describe gap and overlap.
- M.1.16.2: I can describe what it means to measure using non-standard units.
- M.1.16.3: I can model measuring using non-standard units.

• Lessons 9.3-9.5

1.DA.16: Organize, represent, and interpret data with up to three categories.

- a. Ask and answer questions about the total number of data points in organized data.
- b. Summarize data on Venn diagrams, pictographs, and “yes-no” charts using real objects, symbolic representations, or pictorial representations.
- c. Determine “how many” in each category using up to three categories of data.
- d. Determine “how many more” or “how many less” are in one category than in another using data organized into two or three categories.

[Schools PLP Lessons](#)

[136,137,138,139,140,141,142,143,144,145](#)

[Ready Common Core Lessons 29,30](#)

- M.1.18.1: I can define more and less.
- M.1.18.2: I can describe methods for representing data (pictographs, tally charts, bar graphs, and Venn Diagrams).
- M.1.18.3: I can locate information on data displays.
- M.1.18.4: I can classify objects into given categories; count the number of objects in each category and sort the categories by count.
- M.1.18.5: I can recognize different types of data displays.

• Lessons 10.1-10.7

1.NBT.12: Compare pairs of two-digit numbers based on the values of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$ and orally with the words “is greater than,” “is equal to,” and “is less than.”

- M.1.11.1: I can define greater than, less than and equal to.
- M.1.11.2: I can demonstrate greater than, less than, and equal to using manipulatives, object drawings or numbers 0 to 10.
- M.1.11.2a: I can use comparison vocabulary (greater than, equal to, and less than).
- M.1.11.3: I can recognize symbols for greater than, less than and equal to.
- M.1.11.4: I can determine the value of the digits in the ones and tens place.
- M.1.11.5: I can identify sets with more, less or equal objects.
- M.1.11.6: I can imitate creating sets of a given size.

• Lessons 7.1-7.4

[Schools PLP Lessons](#)

[17,18,19,20,158,159,160,161,162,163](#)

[Ready Common Core Lesson 22](#)

1.NBT.14: Given a two-digit number, mentally find 10 more or 10 less than the number without having to count, and explain the reasoning used.

- M.1.13.1: I can define more and less.
- M.1.13.2: I can demonstrate conceptual understanding of adding or subtracting 10 using concrete models.
- M.1.13.3: I can count backward from 100 by tens.
- M.1.13.4: I can count forward to 100 by tens.
- M.1.13.5: I can count to 100 by ones.

• Lesson 7.5

[Schools PLP Lessons 16,85,91](#)

[Ready Common Core Lesson 19](#)

Vocabulary

<p>pattern repeated set displayed pattern types: A/B; A/B/C; AA/BB/CC, etc.</p>	<p>numeral number number words 0-20 (with number), thirty, forty, fifty, sixty, seventy, eighty, ninety, one hundred 120 Chart displayed place value ones tens hundreds ten-frame count forward</p>	<p>count backward model two-digit number compare more less fewer same symbols >, =, and < with the words "is greater than," "is equal to," and "is less than."</p>	<p>measure length sort order comparative words: (shorter, longer, taller, shortest, longest, tallest) gap non-standard unit organize represent</p>	<p>interpret data categories graph more fewer most fewest compare</p>	<p>attributes shape color words two-dimensional plane shape circle square triangle oval rectangle hexagon trapezoid</p>
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Major Focus	Supporting Work	Additional Work (Minor)
Know number names to 20 and the count sequence to 100. Count to tell the number of objects. Compare numbers to ten using more/less, bigger/smaller. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. Recognize numbers 11-19 as one ten and some ones.	Classify objects and count the number of objects in categories.	Describe and compare measurable attributes. Identify and describe shapes and solids. Analyze, compare, create, and compose shapes.



First Grade Second Quarter Pacing Guide

Mathematics

Introduction to Your Mathematics Pacing Guide

Operations & Algebraic Thinking

Go Math Ch. 1-4

1.OA.1: Use addition and subtraction to solve word problems within 20 by using concrete objects, drawings, and equations with a symbol for the unknown number to represent the problem.

- Add to with change unknown to solve word problems within 20.
- Take from with change unknown to solve word problems within 20.
- Put together/take apart with addend unknown to solve word problems within 20.
- Compare quantities, with difference unknown, bigger unknown, and smaller unknown while solving word problems within 20.

[Schools PLP Lessons](#)

[30,35,37,46,52,100,102,132,133,134,178](#)

[Ready Common Core Lessons 3,5](#)

- M.1.1.1: I can solve addition and subtraction word problems and add and subtract within 10 by using objects or drawings to represent the problem.
- M.1.1.2: I can understand key words in addition and subtraction word problems (sum, difference, all together, how many more, how many are left, in all).
- M.1.1.3: I can define subtraction as separating groups of objects, taking from, or taking apart.
- M.1.1.4: I can define addition as combining groups of objects, adding to, or putting together.
- M.1.1.5: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.
- M.1.1.6: I can represent numbers with objects or drawings.
- M.1.1.7: I can use objects to combine and separate groups.

- Lessons 1.1-1.4, 1.7
- Lessons 2.1-2.4, 2.6, 2.8
- Lessons 4.6

Number & Operations in Base Ten

Go Math Ch. 7 (review)

1.NBT.12: Compare pairs of two-digit numbers based on the values of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$ and orally with the words “is greater than,” “is equal to,” and “is less than.”

- M.1.11.1: I can define greater than, less than and equal to.
- M.1.11.2: I can demonstrate greater than, less than, and equal to using manipulatives, object drawings or numbers 0 to 10.
- M.1.11.2a: I can use comparison vocabulary (greater than, equal to, and less than).
- M.1.11.3: I can recognize symbols for greater than, less than and equal to.
- M.1.11.4: I can determine the value of the digits in the ones and tens place.
- M.1.11.5: I can identify sets with more, less or equal objects.
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- Lessons 7.1-7.4

[Schools PLP Lessons](#)

[17,18,19,20,158,159,160,161,162,163](#)

[Ready Common Core Lesson 22](#)

Review from 1st Quarter:

1.NBT.14: Given a two-digit number, mentally find 10 more or 10 less than the number without having to count, and explain the reasoning used.

- M.1.13.1: I can define more and less.
- M.1.13.2: I can demonstrate conceptual understanding of adding or subtracting 10 using concrete models.
- M.1.13.3: I can count backward from 100 by tens.
- M.1.13.4: I can count forward to 100 by tens.
- M.1.13.5: I can count to 100 by ones.

- Lesson 7.5

[Schools PLP Lessons 16,85,90,91](#)

Measurement & Data

1.M.20: Identify pennies and dimes by name and value.

(*new standard)

- I can identify pennies and dimes.
- I know that pennies have the value of 1 and dimes have the value of 10.

Go Math Ch. 10 (review)

***Review from 1st Quarter and incorporate weekly across the curriculum:**

1.DA.16: Organize, represent, and interpret data with up to three categories.

- Ask and answer questions about the total number of data points in organized data.
- Summarize data on Venn diagrams, pictographs, and “yes-no” charts using real objects, symbolic representations, or pictorial representations.
- Determine “how many” in each category using up to three categories of data.
- Determine “how many more” or “how many less” are in one category than in another using data organized into two or three categories.

[Schools PLP Lessons](#)

[136,137,138,139,140,141,142,143,144,145](#)

[Ready Common Core Lessons 29,30](#)

- M.1.18.1: I can define more and less.
- M.1.18.2: I can describe methods for representing data (pictographs, tally charts, bar graphs, and Venn Diagrams).
- M.1.18.3: I can locate information on data displays.
- M.1.18.4: I can classify objects into given categories; count the number of objects in each category and sort the categories by count.
- M.1.18.5: I can recognize different types of data displays.

- Lessons 10.1-10.7

Geometry

***Introduce first-grade standards while working with patterns (1.OA.9):**

1.G.21: Build and draw shapes which have defining attributes.

- Distinguish between defining attributes and non-defining attributes. Examples: Triangles are closed and three-sided, which are defining attributes; color, orientation, and overall size are non-defining attributes.

[Schools PLP Lessons 55,56,57,58,60,61,62](#)

[Ready Common Core Lessons 26,27,28](#)

- M.1.19.1: I can define side, angle, closed and open.
- M.1.19.2: I can describe attributes of shapes (number of sides, number of angles).
- M.1.19.3: I can identify two-dimensional shapes.
- M.1.19.4: I can sort two-dimensional shapes.
- M.1.19.5: I can identify basic attributes (color, shape, size).

1. **OA.2:** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20 by using concrete objects, drawings, or equations with a symbol for the unknown number to represent the problem.

[Schools PLP 83,120,175,176,177,179](#)

[Ready Common Core Lesson 15](#)

- M.1.2.1: I can solve addition word problems with sums less than or equal to 10, e.g., by using objects or drawings to represent the problem.
- M.1.2.2: I can understand key words in addition word problems (sum, all together, how many more, in all).
- M.1.2.3: I can define addition as combining groups of objects, adding to, or putting together.
- M.1.2.4: I can represent addition with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.
- M.1.2.5: I can represent numbers with objects or drawings.
- M.1.2.6: I can use objects to combine groups.

• Lessons 3.12

1.OA.3: Apply properties of operations as strategies to add and subtract. Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known (commutative property of addition).

To add $2 + 6 + 4$, the second and third numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$ (associative property of addition). When adding 0 to a number, the result is the same number (identity property of zero for addition).

[Schools PLP 73,74,80,81,82](#)

[Ready Common Core Lesson 8](#)

- M. 1.3.1: I can define addition and subtraction.
- M. 1.3.2: I can recognize properties of operations.
- M. 1.3.3: I can decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings and record each decomposition by a drawing or equation.
- M.1.3.4: I can apply signs +, -, = to actions of joining and separating sets.
- M.1.3.5: I can identify fact families to ten.
- M.1.3.6: I can recognize the value of zero.

• Lessons 1.5-1.6

• Lessons 3.1, 3.10-3.11

1.OA.4: Explain subtraction as an unknown-addend problem. Example: subtracting $10 - 8$ by finding the number that makes 10 when added to 8.

[Schools PLP Lessons 77,78,96](#)

[Ready Common Core Lesson 4](#)

- M.1.4.1: I can decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings and record each decomposition by a drawing or equation.
- M.1.4.2: I can identify fact families to ten.
- M.1.4.3: I can recall basic addition facts to ten.
- M.1.4.4: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.

• Lessons 4.2-4.3

1.OA.5: Relate counting to addition and subtraction. Example: counting on 2 to add 2.

[Schools PLP Lessons 27,34,40,47,52,53,94,98](#)

[Ready Common Core Lesson 4](#)

- M.1.5.1: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.
- M.1.5.2: I can count forward and backward from a given number.
- M.1.5.3: I can count to 20 by ones.

• Lessons 3.2

• Lessons 4.1

1.OA.6: Add and subtract within 20.

- a. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by counting on.
- b. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by making ten.
- c. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by decomposing a number leading to a ten. Example: $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$.
- d. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by using the relationship between addition and subtraction. Example: Knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$.
- e. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by creating

equivalent but easier or known sums. Example: adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$.

[Schools PLP Lessons](#)

[1,24,25,26,31,32,33,46,48,49,50,51,71,72,75,76,79,83,95,128,131](#)

[Ready Common Core 2,6,9,11,13,14,16](#)

- M.1.6.1: I can decompose numbers less than or equal to 10.
- M.1.6.2: I can add and subtract within 5.
- M.1.6.3: I can count forward and backward from a given number.
- M.1.6.4: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.

- Lessons 1.8
- Lessons 2.9
- Lessons 3.3-3.9
- Lessons 4.4-4.5

1.OA.8. Solve for the unknown whole number in various positions in an addition or subtraction equation, relating three whole numbers that would make it true. Example: determining the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = ? - 3$, and $6 + 6 = ?$

[Schools PLP Lessons 5,35,97,119,120](#)

[Ready Common Core Lesson 7](#)

- M.1.8.1: I can decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings and record each decomposition by a drawing or equation.
- M.1.8.2: I can identify fact families as a relationship between addition and subtraction.
- M.1.8.3: I can recall basic addition and subtraction facts to ten.
- M.1.8.4: I can identify plus, minus, and equal signs.
- M.1.8.5: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.

- Lessons 2.5, 2.7

Vocabulary					
addition adding sum putting together combining subtraction subtract difference taking apart separating all together how many more	how many are left in all facts fact family addend fact fluency commutative property associative property zero property +, -, = symbols with names plus, minus, and equal	numeral number number words 0-20 (with number), thirty, forty, fifty, sixty, seventy, eighty, ninety, one hundred 120 Chart displayed place value ones tens hundreds ten-frame count forward	count backward model two-digit number compare more less fewer same symbols >, =, and < with the words "is greater than," "is equal to," and "is less than."	organize represent interpret data categories graph more fewer most fewest compare money penny dime money symbols	attributes shape color words two-dimensional plane shape circle square triangle oval rectangle hexagon trapezoid

Mathematical Practices	Research-based Instructional Practices
<ul style="list-style-type: none"> <input type="checkbox"/> Make sense of problems and persevere in solving them. <input type="checkbox"/> Reason abstractly and quantitatively. <input type="checkbox"/> Construct viable arguments and critique the reasoning of others. <input type="checkbox"/> Model with mathematics. <input type="checkbox"/> Use appropriate tools strategically. <input type="checkbox"/> Attend to precision. <input type="checkbox"/> Look for and make use of structure. <input type="checkbox"/> Look for and express regularity in repeated reasoning. 	<ul style="list-style-type: none"> <input type="checkbox"/> Give students access to a variety of activity settings such as individual, teacher-led small group, whole group, student group work, and choice. <input type="checkbox"/> Encourage meaningful peer interactions and promote peer conversations. Avoid dominating classroom conversations by maintaining a balance of teacher and student talk. <input type="checkbox"/> Provide opportunities for students to make predictions and brainstorm consequences. Encourage them to discover and evaluate their own answers. <input type="checkbox"/> Help students monitor their own thinking by showing them how you approach a problem and the questions you ask yourself to monitor your own thinking process. Think out loud. <input type="checkbox"/> Help students explain, justify, or demonstrate their own learning by offering opportunities to reflect on, plan, and share their thinking. <input type="checkbox"/> Use scaffolded instruction to asking open-ended questions, engage in feedback loops, and probe deeply into students thinking and understanding. Balance with didactic instruction. <input type="checkbox"/> Provide needed practice and repetition, models, demonstrations, information and guidance using didactic instruction.

Prerequisites
 Last year, teachers spent a large majority of the instructional time on these focus skills.
 This year, students should have a strong foundation in the following areas:

Resources:
 *GoMath! *Ready Common Core *V-Math *V-Math Live *i-Ready Teacher Toolbox, etc. *SchoolsPLP
 *AL COS Standards

Major Focus	Supporting Work	Additional Work (Minor)
Know number names to 20 and the count sequence to 100. Count to tell the number of objects Compare numbers to ten using more/less, bigger/smaller. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. Recognize the numbers 11–19 as one ten and some ones.	Classify objects and count the number of objects in categories.	Describe and compare measurable attributes. Identify and describe shapes and solids.. Analyze, compare, create, and compose shapes.



First Grade Third Quarter Pacing Guide

Mathematics

Introduction to Your Mathematics Pacing Guide

Grade 1	Mathematics		Third Quarter
Operations & Algebraic Thinking	Number & Operations in Base Ten	Measurement & Data	Geometry
<p style="text-align: center;"><u>Go Math Ch. 5</u></p> <p>1.OA.1: Use addition and subtraction to solve word problems within 20 by using concrete objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p> <p>a. Add to with change unknown to solve word problems within 20.</p> <p>b. Take from with change unknown to solve word problems within 20.</p> <p>c. Put together/take apart with addend unknown to solve word problems within 20.</p> <p>d. Compare quantities, with difference unknown, bigger unknown, and smaller unknown while solving word problems within 20.</p> <p>Schools PLP Lessons 25,37,46,52,99,100,101,102,132,133,134,178 Ready Common Core Lessons 3,5,15</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.1.1.1: I can solve addition and subtraction word problems and add and subtract within 10 by using objects or drawings to represent the problem. <input type="checkbox"/> M.1.1.2: I can understand key words in addition and subtraction word problems (sum, difference, all together, how many more, how many are left, in all). <input type="checkbox"/> M.1.1.3: I can define subtraction as separating groups of objects, taking from, or taking apart. <input type="checkbox"/> M.1.1.4: I can define addition as combining groups of objects, adding to, or putting together. <input type="checkbox"/> M.1.1.5: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations. <input type="checkbox"/> M.1.1.6: I can represent numbers with objects or drawings. <input type="checkbox"/> M.1.1.7: I can use objects to combine and separate groups. <p>• Lessons 5.1, 5.7</p>	<p style="text-align: center;"><u>Go Math Ch. 8</u></p> <p>1. NBT.13: Add within 100, using concrete models or drawings and strategies based on place value.</p> <p>a. Add a two-digit number and a one-digit number.</p> <p>b. Add a two-digit number and a multiple of 10.</p> <p>c. Demonstrate that in adding two-digit numbers, tens are added to tens, ones are added to ones, and sometimes it is necessary to compose a ten.</p> <p>d. Relate the strategy for adding a two-digit number and a one-digit number to a written method and explain the reasoning used.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.1.12.1: I can demonstrate regrouping, total sum, and solve using drawings and concrete models. <input type="checkbox"/> M.1.12.2: I can model written method for recording horizontal addition problems. <input type="checkbox"/> M.1.12.3: I can determine the value of the number in the ones and tens place. <input type="checkbox"/> M.1.12.4: I can match the number in the ones, tens, and hundreds position to a pictorial representation or manipulative of the value. <input type="checkbox"/> M.1.12.5: I can represent numbers with multiple models (base ten blocks, number lines, linking cubes, straw bundles). <input type="checkbox"/> M.1.12.6: I can recall single-digit addition facts. <p>• Lessons 8.2, 8.4-8.9 Schools PLP Lessons 28,29,36,43,88,89,92,93,118,120,121,122,124,125,126,127,134,173 Ready Common Core Lessons 23,24,25</p> <p>1. NBT.15: Subtract multiples of 10 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written method and explain the reasoning used.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.1.14.1: I can demonstrate conceptual understanding of subtraction using concrete models. <input type="checkbox"/> M.1.14.2: I can model written method for recording problems involving subtraction of 10 from multiples of 10. <input type="checkbox"/> M.1.14.3: I can count backward from 100 by tens. <input type="checkbox"/> M.1.14.4: I can count forward to 100 by tens. <input type="checkbox"/> M.1.14.5: I can mimic counting to 100 by tens. 	<p style="text-align: center;"><u>Go Math Ch. 9</u></p> <p>1.M.19: Tell and write time to the hours and half hours using analog and digital clocks.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.1.17.1: I can describe the shorter hand as the hour hand and the longer hand as the minute hand on an analog clock. <input type="checkbox"/> M.1.17.2: I can describe the first number as the hour, and the numbers after the colon as the minutes on a digital clock. <input type="checkbox"/> M.1.17.3: I can count to 30 by fives. <input type="checkbox"/> M.1.17.4: I can recognize numbers 1 to 12, and 30. <input type="checkbox"/> M.1.17.5: I can trace numerals 1 to 12, and 30. <input type="checkbox"/> M.1.17.6: I can associate digital and analog clocks with the measurement of time. <p>Schools PLP Lessons 104,105,106,107,108,109,110,111,112,113,114 Ready Common Core Lesson 34</p> <p>• Lessons 9.6-9.9</p> <p>*Review from 1st Quarter and incorporate weekly across the curriculum:</p> <p>1.DA.16: Organize, represent, and interpret data with up to three categories.</p> <p>a. Ask and answer questions about the total number of data points in organized data.</p> <p>b. Summarize data on Venn diagrams, pictographs, and "yes-no" charts using real objects, symbolic representations, or pictorial representations.</p> <p>c. Determine "how many" in each category using up to three categories of data.</p> <p>d. Determine "how many more" or "how many less" are in one category than in another using data organized into two or three categories.</p> <p>Schools PLP Lessons 136,137,138,139,140,141,142,143,144,145 Ready Common Core Lessons 29,30</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.1.18.1: I can define more and less. <input type="checkbox"/> M.1.18.2: I can describe methods for representing data (pictographs, tally charts, bar graphs, and Venn Diagrams). <input type="checkbox"/> M.1.18.3: I can locate information on data displays. <input type="checkbox"/> M.1.18.4: I can classify objects into given categories; count the number of objects in each category and sort the categories by count. <input type="checkbox"/> M.1.18.5: I can recognize different types of data displays. 	<p style="text-align: center;"><u>Go Math Ch. 11-12</u></p> <p>1.G.21: Build and draw shapes which have defining attributes.</p> <p>a. Distinguish between defining attributes and non-defining attributes. Examples: Triangles are closed and three-sided, which are defining attributes; color, orientation, and overall size are non-defining attributes.</p> <p>Schools PLP Lessons 55,56,57,58,60,61,62 Ready Common Core Lessons 26,27,28</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.1.19.1: I can define side, angle, closed and open. <input type="checkbox"/> M.1.19.2: I can describe attributes of shapes (number of sides, number of angles). <input type="checkbox"/> M.1.19.3: I can identify two-dimensional shapes. <input type="checkbox"/> M.1.19.4: I can sort two-dimensional shapes. <input type="checkbox"/> M.1.19.5: I can identify basic attributes (color, shape, size). <p>• Lesson 11.1, 11.5 • Lessons 12.1-12.2</p> <p>1.G.22: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape and compose new shapes from the composite shape.</p> <p>Schools PLP Lessons 59,63,64 Ready Common Core Lesson 27</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.1.20.1: I can combine shapes to fill in the area of a given shape. <input type="checkbox"/> M.1.20.2: I can replicate composite shapes. <input type="checkbox"/> M.1.20.3: I can decompose pictures made of simple shapes. <input type="checkbox"/> M.1.20.4: I can name shapes (square, circle, triangle, rectangle, and hexagon). <input type="checkbox"/> M.1.20.5: I can recognize shapes. <p>• Lessons 11.2-11.4 • Lessons 12.3-12.7</p> <p>1.G.23: Partition circles and rectangles into two and four equal shares and describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of.</p> <p>a. Describe "the whole" as two of or four of the shares of circles and rectangles partitioned into two or four equal shares.</p> <p>b. Explain that decomposing into more equal shares creates smaller shares of circles and rectangles.</p>

• Lessons 8.3, 8.9
Schools PLP Lessons 171,172
Ready Common Core Lesson 23,24,25

1.OA.6: Add and subtract within 20.

- a. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by counting on.
- b. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by making ten.
- c. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by decomposing a number leading to a ten. Example: $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$.
- d. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by using the relationship between addition and subtraction. Example: Knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$.
- e. Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by creating equivalent but easier or known sums. Example: adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$.

Schools PLP Lessons

1,24,25,26,31,32,33,48,49,50,51,72,75,76,79,83,95,
128,131,165,166

Ready Common Core Lessons 2,6,9,11,13,14,16

- M.1.6.1: I can decompose numbers less than or equal to 10.
- M.1.6.2: I can add and subtract within 5.
- M.1.6.3: I can count forward and backward from a given number.
- M.1.6.4: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.

• Lessons 5.2-5.4, 5.8, 5.10

• Lessons 8.1

1.OA.7: Explain that the equal sign means “the same as.” Determine whether equations involving addition and subtraction are true or false.

Example: determining which of the following equations are true and which are false: $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.

Schools PLP Lessons 22,23,29,36,98,123

Ready Common Core Lesson 10

- M 1.7.1: I can define true, false, and equal.
- M.1.7.2: I can demonstrate equal using manipulatives or object drawings.
- M.1.7.3: I can recall basic addition facts to ten.
- M.1.7.4: I can recognize equation symbols in vertical and horizontal addition and subtraction problems.

Schools PLP Lessons 65,66,67,68,69

Ready Common Core Lesson 28

- M.1.21.1: I can define halves, fourths, quarters, whole, parts (shares) and equal.
- M.1.21.2: I can demonstrate sharing situations to show equal smaller shares.
- M.1.21.3: I can distinguish between equal and non-equal parts.
- M.1.21.4: I can decompose pictures made of simple shapes.
- M. 1.21.5: I can identify squares, circles, triangles and rectangles.

• Lessons 12.8-12.10

<p>□ M.1.7.5: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.</p> <p>• Lessons 5.9</p> <p>1.OA.8: Solve for the unknown whole number in various positions in an addition or subtraction equation, relating three whole numbers that would make it true. Example: determining the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = ? - 3$, and $6 + 6 = ?$ Schools PLP Lessons 35,119,130 Ready Common Core Lesson 7,10</p> <p>□ M.1.8.1: I can decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings and record each decomposition by a drawing or equation.</p> <p>□ M.1.8.2: I can identify fact families as a relationship between addition and subtraction.</p> <p>□ M.1.8.3: I can recall basic addition and subtraction facts to ten.</p> <p>□ M.1.8.4: I can identify plus, minus, and equal signs.</p> <p>□ M.1.8.5: I can represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.</p> <p>• Lessons 5.5-5.6</p>			
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Vocabulary			
addition adding sum putting together combining subtraction subtract difference taking apart separating all together how many more	how many are left in all facts fact family addend fact fluency commutative property associative property zero property +, -, = symbols with names plus, minus, and equal	numeral number number words 0-20 (with number), thirty, forty, fifty, sixty, seventy, eighty, ninety, one hundred 120 Chart displayed place value ones tens hundreds ten-frame count forward	count backward model two-digit number compare more less fewer same symbols >, =, and < with the words "is greater than," "is equal to," and "is less than."

Mathematical Practices		
<ul style="list-style-type: none"> <input type="checkbox"/> Make sense of problems and persevere in solving them. <input type="checkbox"/> Reason abstractly and quantitatively. <input type="checkbox"/> Construct viable arguments and critique the reasoning of others. <input type="checkbox"/> Model with mathematics. <input type="checkbox"/> Use appropriate tools strategically. <input type="checkbox"/> Attend to precision. <input type="checkbox"/> Look for and make use of structure. <input type="checkbox"/> Look for and express regularity in repeated reasoning. 	<ul style="list-style-type: none"> <input type="checkbox"/> Give students access to a variety of activity settings such as individual, teacher-led small group, whole group, student group work, and choice. <input type="checkbox"/> Encourage meaningful peer interactions and promote peer conversations. Avoid dominating classroom conversations by maintaining a balance of teacher and student talk. <input type="checkbox"/> Provide opportunities for students to make predictions and brainstorm consequences. Encourage them to discover and evaluate their own answers. <input type="checkbox"/> Help students monitor their own thinking by showing them how you approach a problem and the questions you ask yourself to monitor your own thinking process. Think out loud. <input type="checkbox"/> Help students explain, justify, or demonstrate their own learning by offering opportunities to reflect on, plan, and share their thinking. <input type="checkbox"/> Use scaffolded instruction to asking open-ended questions, engage in feedback loops, and probe deeply into students thinking and understanding. Balance with didactic instruction. <input type="checkbox"/> Provide needed practice and repetition, models, demonstrations, information and guidance using didactic instruction. 	
Prerequisites		
Last year, teachers spent a large majority of the instructional time on these focus skills. This year, students should have a strong foundation in the following areas:		
Resources:		
*GoMath! *Ready Common Core *V-Math *V-Math Live *i-Ready Teacher Toolbox, etc. *SchoolsPLP *AL COS Standards		
Major Focus	Supporting Work	Additional Work (Minor)
Know number names to 20 and the count sequence to 100. Count to tell the number of objects. Compare numbers to 10 using more/less, bigger/smaller. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. Recognize numbers 11–19 as one ten and some ones.	Classify objects and count the number of objects in categories.	Describe and compare measurable attributes. Identify and describe shapes and solids. Analyze, compare, create, and compose shapes.



First Grade Fourth Quarter Pacing Guide

Mathematics

Introduction to Your Mathematics Pacing Guide

*Review previously taught 1st grade standards using data driven intervention strategies.

*Provide enrichment activities for students who have mastered grade level standards

Go Math Getting Ready for 2nd Grade

Operations & Algebraic Thinking	Number & Operations in Base Ten	Measurement & Data	Geometry
<p>2.OA.1: Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.2.1.3: I can locate the unknown regardless of position. <p>• Getting Ready for 2nd Grade: Lessons 4-6</p> <p>2.OA.2: Fluently add and subtract within 20 using mental strategies such as counting on, making ten, decomposing a number leading to ten, using the relationship between addition and subtraction, and creating equivalent but easier or known sums.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.2.2.3: I can apply addition and subtraction strategies. <p>• Getting Ready for 2nd Grade: Lessons 7-11</p>	<p>2.NBT.6: Explain that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.2.5.2: I can represent numbers with multiple concrete models. <p>• Getting Ready for 2nd Grade: Lessons 1-3</p>	<p>2.M.18: Measure objects with two different units and describe how the two measurements relate to each other and the size of the unit chosen.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.2.14.6: I can compare the lengths of two objects indirectly by using a third object. <p>• Getting Ready for 2nd Grade: Lessons 12-14</p> <p>2.DA.16: Create a picture graph and bar graph to represent data with up to four categories.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.2.23.4: I can use vocabulary related to comparing data (more than, less than, most, least, equal). <p>• Getting Ready for 2nd Grade: Lessons 16-18</p>	<p>2.G.25: Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.2.24.4: I can sort triangles, quadrilaterals, pentagons, hexagons, and cubes. <p>2.G.27: Partition circles and rectangles into two, three, or four equal shares. Describe the shares using such terms as halves, thirds, half of, or a third of, and describe the whole as two halves, three thirds, or four fourths.</p> <ul style="list-style-type: none"> <input type="checkbox"/> M.2.26.2: I can distinguish between equal and non-equal parts. <p>• Getting Ready for 2nd Grade: Lessons 19-20</p>
Vocabulary			
<p>addition strategies subtraction strategies fact fluency</p>	<p>120 Chart displayed place value symbols >, =, and < with the words "is greater than," "is equal to," and "is less than."</p>	<p>organize represent interpret data categories measure length standard unit non-standard unit</p>	<p>two-dimensional three-dimensional equal share thirds fourths whole quarters non-equal share halves</p>