2021.2022, First Grade, Mathematics

Ongoing Mathematical Practices: 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	**Effective Teaching Practices** 1. Establish mathematics goals to focus learning. 2. Implement tasks that promote reasoning and problem solving. 3. Use and connect mathematical representations. 4. Facilitate meaningful mathematical discourse. 5. Pose purposeful questions. 6. Build procedural fluency from conceptual understanding. 7. Support productive struggle in learning mathematics. 8. Elicit and use evidence of student thinking.
Ongoing fluency expectations: *1.OA.C.6 Fluently add and subtract within 20 using mental strategies. (Know from memory all sums up to 10.)	*Ongoing resources* *calendar, student journals, Number Talks, pretests* Online Resources: *Xtramath* and Dreambox, Epic books, Go Math readers
Literacy Skills for Mathematical Proficiency: 1. Use multiple reading strategies. 2. Understand and use correct mathematical vocabulary 3. Discuss and articulate mathematical ideas. 4. Write mathematical arguments.	**Go Math** *Transition to electronic testing in spring* Q1 chapters 1-3 Q2 chapters 4-6 Q3 chapters 7-10 (chapter 10 all) **High Stakes Test Prep wb by request** Q4 chapters 11-12 **Getting Ready for Grade 2 (Planning Guide)**
Routines and procedures to include calendar, Number Talks, daily fact fluency, tasks, center rotations, journal writing, pretests, vocabulary, etc.	

2021.22, First Grade, Mathematics, Quarter 1

Content Standards	Student Friendly "I Can" Statements
1.WCE.M.1 Demonstrate the use of calendar as a way of measuring units of time and understanding numerical patterns. (Q1, Q2, Q3, Q4)	*I can use a calendar in order to identify the year, month, week, day, yesterday, today, and tomorrow.* *I can tell that a calendar is used to measure time in days, weeks or months. Days make weeks, weeks make months, and months make years.* *I can identify patterns in a calendar and understand the calendar is set up in columns and rows.* *I can match ordinal numbers to the months and days of the year. (e.g., January 15 is the first month, fifteenth day.)*
1.OA.A.1 Add and subtract within 20 to solve contextual problems, with unknowns in all positions, involving situations of add to, take from, put together/take apart, and compare. Use objects, drawings, and equations with a symbol for the unknown number to represent the problem. (Q1. Q2) *(See Table 1 - Addition and Subtraction Situations)*	**I can** determine if I need to add or subtract in a word problem with unknowns. (within 20) **I can** model and solve addition and subtraction word problems using objects, drawings, and equations with a symbol for the unknown. (within 20) **I can** solve word problems with unknown numbers indifferent positions.
1.OA.A.2 Add three whole numbers whose sum is within 20 to solve contextual problems using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	**I can** model addition and subtraction word problems using objects, drawings, and equations with unknown numbers in different positions. **I can** add three whole numbers whose sum is less than or equal to 20. **I can** solve word problems with adding three whole numbers using objects, drawings, and equations.

Content Standards	Student Friendly "I Can" Statements
1.OA.B.3 Apply properties of operations (additive identity, commutative, and associative) as strategies to add and subtract. (Students need not use formal terms for these properties.)	**I can** show that adding *or subtracting* zero to any number does not change the number. *(additive identity or zero identity)* **I can** show that changing the order of the addends does not change the sum. *Example: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.)* **I can** show when adding three numbers in any order, the sum does not change. *To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)* **I can** use properties of operations to add and subtract within 20 *(see 1.OA.B.4)* Q2.
1.OA.C.5 Add and subtract within 20 using strategies such as counting on, counting back, making 10, using fact families and related known facts, and composing/ decomposing numbers with an emphasis on making ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9 or adding 6 + 7 by creating the known equivalent 6 + 4 + 3 = 10 + 3 = 13). (Q1, Q2)	**I can** count on to add. **I can** count backward to subtract. **I can** count up to subtract. **I can** use fluency strategies to add and subtract within 20.
***1.OA.C.6** Fluently add and subtract within 20 using mental strategies. By the end of 1st grade, known from memory all sums up to 10. (Q1, Q2, Q3)*	**I can** add and subtract within 20 by counting on and making a ten. **I can** add and subtract within 20 by using the relationship between addition and subtraction. **I can** fluently add and subtract within 20 by using mental strategies. (e.g.) · Counting back · Counting up from or counting on · Doubles and doubles plus one · Fact families and related unknown facts · Decomposing numbers with an emphasis on making a ten

Content Standards	Student Friendly "I Can" Statements
1.OA.D.8 *Determine the unknown whole number in an addition or subtraction equation, with the unknown in any position (e.g., 8+?=11, 5 =?-3, 6+6=?). (Q1, Q2)*	**I can** recognize part-part-whole relationships of three numbers with the unknown in any position. **I can** determine the unknown value in an addition or subtraction equation when two out of three of the numbers in the equation are given.

Content Standards	Student Friendly "I Can" Statements
1.WCE.M.1 Demonstrate the use of calendar as a way of measuring units of time and understanding numerical patterns. (Q1, Q2, Q3, Q4)	*I can use a calendar in order to identify the year, month, week, day, yesterday, today, and tomorrow.* *I can tell that a calendar is used to measure time in days, weeks or months. Days make weeks, weeks make up months, and months make years.* *I can identify patterns in a calendar and understand the calendar is set up in columns and rows.* *I can match ordinal numbers to the months and days of the year. (e.g., January 15 is the first month, fifteenth day.)*
1.WCE.M.2 Describe patterns when counting and use those patterns to predict the next number in the counting sequence up to 120.	**I can** describe patterns when counting (both forward and backward) to predict the next number in a counting sequence. **I can** skip count using tools such as a number line or hundreds chart, and use those patterns to predict the next number in the counting sequence.
1.OA.C.5 Add and subtract within 20 using strategies such as counting on, counting back, making 10, using fact families and related known facts, and composing/ decomposing numbers with an emphasis on making ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9 or adding 6 + 7 by creating the known equivalent 6 + 4 + 3 = 10 + 3 = 13).	**I can** count on to add. **I can** count backward to subtract. **I can** count up to subtract. **I can** use fluency strategies to add and subtract within 20.
1.OA.B.4 Understand subtraction as an unknown-addend problem. *For example, to solve 10 − 8 =____, a student can use 8 +____ = 10.*	**I can** apply related facts to solve problems that have an unknown value. **I can** give an example and explain how a subtraction equation can be rewritten as an addition equation. **I can** rewrite a subtraction equation as an addition equation with a missing addend. **I can** add and subtract within 10. (automaticity) **I can** use addition and subtraction within 20. (fluency)

Content Standards	Student Friendly "I Can" Statements
1.OA.A.1 *Add and subtract within 20 to solve contextual problems, with unknowns in all positions, involving situations of add to, take from, put together/take apart, and compare. Use objects, drawings, and equations with a symbol for the unknown number to represent the problem. (Q1. Q2)* *(See Table 1 - Addition and Subtraction Situations)*	**I can** determine if I need to add or subtract in a word problem with unknowns. (within 20) **I can** model and solve addition and subtraction word problems using objects, drawings, and equations with a symbol for the unknown. (within 20) **I can** solve word problems with unknown numbers indifferent positions.
*1.OA.C.6 *Fluently add and subtract within 20 using mental strategies. By the end of 1st grade, know from memory all sums up to 10. (Q1, Q2, Q3)*	**I can** add and subtract within 20 by counting on and making a ten. **I can** add and subtract within 20 by using doubles, doubles plus one, and doubles minus one. **I can** add and subtract within 20 by using the relationship between addition and subtraction. **I can** fluently add and subtract within 20 by using multiple strategies. (e.g.) · Counting back · Counting up from or counting on · Doubles and doubles plus one · Fact families and related unknown facts · Decomposing numbers with an emphasis on making a ten
1.OA.D.7 Understand the meaning of the equal sign (e.g., 6 = 6; 5 + 2 = 4 + 3; 7 = 8 - 1). Determine if equations involving addition and subtraction are true or false.	**I can** explain that the equal sign means "same as" or same amount. **I can** compare the value of both sides of an equation and determine whether the equation is true or false (using concrete objects, pictorial representations and equations).
1.OA.D.8 *Determine the unknown whole number in an addition or subtraction equation, with the unknown in any position (e.g., 8+?=11, 5 =?-3, 6+6=?). (Q1, Q2)*	**I can** recognize part-part-whole relationships of three numbers with the unknown in any position. **I can** determine the unknown value in an addition or subtraction equation when two out of three of the numbers in the equation are given.

Content Standards	Student Friendly "I Can" Statements
1.NBT.A.1 Count to 120, starting at any number. Read and write numerals to 120 and represent a number of objects with a written numeral. Count backward from 20.	**I can** count to 120. **I can** count to 120 starting from any number. **I can** read any number up to 120. **I can** write any number up to 120. **I can** label a set of objects up to 120 with the written numeral. **I can** count backwards from 20.
1.WCE.M.3 Count backward from 30 by ones.	**I can** count backward from 30 by ones.
1.NBT.B.2 Know that the digits of a two-digit number represent groups of tens and ones (e.g., 39 can be represented as 39 ones, 2 tens and 19 ones, or 3 tens and 9 ones).	**I can** identify and represent 10 as ten ones. **I can** identify and represent the value of each digit in a two digit number up to 120. **I can** identify and represent two-digit numbers three different ways using tens and ones. **I can** identify and represent multiple sets of ten between 10 and 90 using tens. (e.g. 2 tens is 20)

Content Standards	Student Friendly "I Can" Statements
1.WCE.M.1 Demonstrate the use of calendar as a way of measuring units of time and understanding numerical patterns. (Q1, Q2, Q3, Q4)	*I can use a calendar in order to identify the year, month, week, day, yesterday, today, and tomorrow.* *I can tell that a calendar is used to measure time in days, weeks or months. Days make weeks, weeks make up months, and months make up years.* *I can identify patterns in a calendar and understand the calendar is set up in columns and rows.* *I can match ordinal numbers to the months and days of the year. (e.g., January 15 is the first month, fifteenth day.)*
1.NBT.B.3 Compare two two-digit numbers based on the meanings of the digits in each place and use the symbols >, =, and < to show the relationship.	**I can** determine when a 2-digit number is greater than, less than, or equal to another 2-digit number. **I can** explain why a 2-digit number is greater than, less than, or equal to another 2-digit number. **I can** use the symbols <, >, = to compare two 2-digit numbers.
1.NBT.C.5 Mentally find 10 more or 10 less than a given two-digit number without having to count by ones and explain the reasoning used.	**I can** mentally add 10 to a 2 digit number. **I can** mentally subtract 10 from a 2 digit number. **I can** explain why the tens digit increases or decreases by 1 when 10 is added or subtracted.
***1.OA.C.6** Fluently add and subtract within 20 using mental strategies. By the end of 1st grade, know from memory all sums up to 10. (Q1, Q2, Q3, Q4)*	**I can** add and subtract within 20 by counting on and making a ten. **I can** add and subtract within 20 by using the relationship between addition and subtraction. **I can** fluently add and subtract within 20 by using mental strategies. (e.g.) · Counting back · Counting up from or counting on · Doubles and doubles plus one

Content Standards	· Student Friendly "I Can" Statements
	· Fact families and related unknown facts · Decomposing numbers with an emphasis on making a ten
1.NBT.C.4 Add a two-digit number to a one-digit number and a two-digit number to a multiple of ten (within 100). Use concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to explain the reasoning used.	**I can** decide when to compose to make a ten. **I can** add a 2 digit number and a 1 digit number within 100. **I can** add a 2 digit number and 1 digit number within 100 using models, drawings, and place value strategies. **I can** add a 2 digit number and a multiple of 10 within 100 using models, drawings, and place value strategies. **I can** explain why I used a strategy to solve a written equation.
1.NBT.C.6 Subtract multiples of 10 from multiples of 10 in the range 10-90 using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	**I can** subtract a multiple of 10 from a multiple of 10.(e.g., subtract 90-40). **I can** explain my strategy for subtracting a multiple of 10 from a multiple of 10. **I can** explain how subtracting by a multiple of ten is related to subtracting the tens digits.
1.MD.A.1 Order three objects by length. Compare the lengths of two objects indirectly by using a third object. *For example, to compare indirectly the heights of Bill and Susan: if Bill is taller than mother and mother is taller than Susan, then Bill is taller than Susan.*	**I can** recognize when an object is longer or shorter than another object. **I can** organize three objects by length in order from shortest to longest. **I can** compare the lengths of two objects by using a third object.
1.MD.A.2 Measure the length of an object using non-standard units and express this length as a whole number of units.	**I can** explain how to use a shorter object to measure the length of a longer object and explain why it is important to avoid gaps and overlaps. **I can** measure the length of an object as the total number of the same shorter objects it takes to span the longer object without gaps and overlaps. **I can** represent the length of the longer object with a whole number.
1.MD.B.3 Tell and write time in hours and half-hours using analog and digital clocks.	**I can** identify a digital and an analog clock and recognize that they are tools that measure time.

Content Standards	Student Friendly "I Can" Statements
	I can identify the hour hand and the minute hand and distinguish between the two. **I can** tell how many minutes are in an hour. **I can** explain why 30 minutes is a half hour. **I can** look at the time on an analog clock (when the minute hand is pointing to 12 or 6), say what time it is, and write the time as it would appear on a digital clock. **I can** look at the time on a digital clock (when the minutes are displayed as :00 or :30), say what time it is, and draw in the hands on an analog clock. **I can** write the time and draw in the hands on an analog clock when someone tells me what time it is (when the time is stated as "_o'clock" or "_ thirty" or "half past _").
1.MD.B.4 TNSSM: *Count the value of a set of like coins less than one dollar using the ¢ symbol only. (Q2 - Q4)*	*I can relate counting by fives to nickels, counting by tens to dimes, and counting 4 quarters to a dollar.* *I can count the value of a set of like coins less than one dollar using the ¢ symbol only.* *I can count a combination of **like** coins up to a dollar by skip counting by 10, 5's, and 25 up to 100 ($1.00).* *I can show the value of a set of coins by using the cent ¢ symbol.*
1.MD.C.5 Organize, represent, and interpret data with up to three categories. Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	**I can** identify different methods to organize and represent data (e.g. sorting, classifying, categorizing, and interpreting data using a table, tally chart, bar graph, and pictograph, etc). **I can** ask and answer questions about the data. **I can** organize and represent data with up to 3 categories. **I can** determine when a category has more or less than another category.
1.WCE.M.4 Count to 100 by twos. (Q3, Q4)	**I can** count to 100 by twos.

2021.22, First Grade, Mathematics, Quarter 4

Content Standards	Student Friendly "I Can" Statements
1.WCE.M.1 Demonstrate the use of calendar as a way of measuring units of time and understanding numerical patterns. (Q1, Q2, Q3, Q4)	*I can use a calendar in order to identify the year, month, week, day, yesterday, today, and tomorrow.* *I can tell that a calendar is used to measure time in days, weeks or months. Days make weeks, weeks make up months, and months make years.* *I can identify patterns in a calendar and understand the calendar is set up in columns and rows.* *I can match ordinal numbers to the months and days of the year. (e.g., January 15 is the first month, fifteenth day.)*
1.MD.B.4 TNSSM: *Count the value of a set of like coins less than one dollar using the ¢ symbol only. (Q2 - Q4)*	*I can relate counting by fives to nickels, counting by tens to dimes, and counting 4 quarters to a dollar.* *I can count the value of a set of like coins less than one dollar using the ¢ symbol only.* *I can count a combination of **like** coins up to a dollar by skip counting by 10, 5's, and 25 up to 100 ($1.00).* *I can show the value of a set of coins by using the cent ¢ symbol.*
1.MD.C.5 Organize, represent, and interpret data with up to three categories. Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	**I can** identify different methods to organize and represent data (e.g. sorting, classifying, categorizing, and interpreting data using a table, tally chart, bar graph, and pictograph, etc). **I can** ask and answer questions about the data. **I can** organize and represent data with up to 3 categories. **I can** determine when a category has more or less than another category.
1.WCE.M.4 Count to 100 by twos. (Q3, Q4)	**I can** count to 100 by twos.

Content Standards	Student Friendly "I Can" Statements
1.G.A.1 Distinguish between attributes that define a shape (e.g., number of sides and vertices) versus attributes that do not define the shape (e.g., color, orientation, overall size); build and draw two-dimensional shapes to possess defining attributes.	**I can** explain the difference between defining attributes (e.g., sides, angles, faces, vertices, edges) and non-defining attributes (e.g., color, orientation, overall size). **I can** construct and draw a 2 dimensional shape when given defining attributes.
1.G.A.2 Create a composite shape and use the composite shape to make new shapes by using two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, rectangular prisms, cones, and cylinders).	**I can** identify two-dimensional and three-dimensional shapes. **I can** create new shapes using two-dimensional and/or three-dimensional shapes.
1.G.A.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as *two of*, or *four of* the shares. Understand for these examples that partitioning into more equal shares creates smaller shares.	**I can** describe commonly used fractions using words and models for halves, thirds and fourths. (Fourths are also called quarters.) **I can** divide/partition a circle and a rectangle into two, three, and four equal parts. **I can** describe the whole using the number of equal parts it has (e.g., two halves make a whole, three-thirds make a whole, four fourths make a whole). **I can** explain that dividing a shape into more equal parts makes smaller pieces.

Embedded K-8 TN Computer Science Standards: referenced in resource column

FCO.6 Select and use appropriate word processing, spreadsheets, and multimedia applications.

AIT.3 Determine the best technology and appropriate tool to address a variety of tasks and problems.

AIT.4 Use multiple processes and diverse perspectives to explore alternative solutions.

AIT.8 Identify that various algorithms can achieve the same result and determine the most efficient sequence.

Getting Ready for Grade 2

Content Standards	Student Friendly "I Can" Statements
1.OA.C.6 *Fluently add and subtract within 20 using mental strategies. By the end of 1st grade, know from memory all sums up to 10. (Q1, Q2, Q3, Q4)*	**I can** add and subtract within 20 by counting on and making a ten. **I can** add and subtract within 20 by using doubles, doubles plus one, and doubles minus one. **I can** add and subtract within 20 by using the relationship between addition

	and subtraction. **I can** fluently add and subtract within 20 by using multiple strategies. (e.g.) · Counting back · Counting up from or counting on · Doubles and doubles plus one · Fact families and related unknown facts Decomposing numbers with an emphasis on making a ten