

2022.2023, Kindergarten, Mathematics

<p>Ongoing Mathematical Practices:</p> <ol style="list-style-type: none"> 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. 	<p>Effective Teaching Practices</p> <ol style="list-style-type: none"> 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.
<p>Ongoing fluency expectation: * K.OA.A.5 Add/subtract within 10 (within 5 Q2; within 10 Q3, Q4)</p>	<p>Ongoing resources <i>student journals</i> <u>Number Talks</u> Online Resources: Xtramath and Dreambox</p>
<p>Literacy Skills for Mathematical Proficiency:</p> <ol style="list-style-type: none"> 1. Use multiple reading strategies. 2. Understand and use correct mathematical vocabulary. 3. Discuss and articulate mathematical ideas. 4. Write mathematical arguments. 	<p>Go Math Q1 chapters 1-3 and What are 3 Act Tasks? (8 slides) AIT.3,4 Q2 chapters 4-6 Q3 chapters 7-9 K.MD.B.3, intro to money, ongoing Q3, Q4 Q4 chapters 10-12 K.MD.B.3 (through mastery)</p>
<p>Routines and procedures may include daily calendar, tasks, center rotations, journal writing, practicing student logins, pretests, vocabulary, etc. After 5 full days of staggered Kindergarten, introduce text with volume 1, “Fall Festival” pages 1-8, and lesson 1 vocabulary.</p>	

2022.23, Kindergarten, Mathematics, Quarter 1

Content Standards	Student Friendly "I Can" Statements
<p><i>K.WCE.M.1 Demonstrate the use of a calendar as a way of measuring units of time and understanding numerical patterns. (Q1, Q2, Q3, Q4)</i></p>	<p>I can use a calendar to tell the day and date. (Q1 -2) I can identify patterns in a calendar and understand the calendar is set up in columns and rows. (Q2) I can use a calendar to identify yesterday, today, and tomorrow based on a given day of the week. (Q3-4) I can tell that yesterday comes before today and tomorrow comes after today. (Q3-4) 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. (Q4)</p>
<p><i>K.WCE.M.2 Name, copy, create, and extend patterns, and explain a simple rule for a pattern. (Q1, Q2)</i></p>	<p>I can copy a given pattern. (Q1-2) I can extend a given pattern. (Q1-2) I can create a given pattern. (Q2)</p>
<p><i>K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality. (Q1, Q2)</i></p> <p><i>a. When counting objects, say the number names in the standard order, using one-to-one correspondence.</i></p> <p><i>b. Recognize that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.</i></p> <p><i>c. Recognize that each successive number name refers to a quantity that is one greater.</i></p> <p><i>Embedded K.OA.A.3 Decompose numbers less than or equal to 10 into addend pairs in more than one way</i></p>	<p>I can count objects in a group correctly. I can tell "how many" are in a group after counting all the objects. I can explain my counting strategy. I can recognize that when I count objects the last number I say is the total number of objects. I can demonstrate that the number of objects does not change when the objects are moved or rearranged. I can tell how many are in a group when one more object is added, without recounting. I can explain my counting strategy.</p>

<p><i>(e.g., $5 = 2 + 3$ and $5 = 4 + 1$) by using objects or drawings. Record each decomposition using a drawing or writing an equation. (Q1-2)</i></p>	
<p>K.CC.A.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20. (Q1,Q2,Q3)</p>	<p>I can write numbers from 0 to 5. (Q1) I can write the numeral that matches a given set (number of objects) from 0-5. (Q1) I can write numbers from 6 to 10. (Q2) I can write the numeral that matches a given set (number of objects) from 6-10. (Q2) I can write numbers from 11 to 20. (Q3) I can represent a group of objects with a written numeral 0-20. (Q3) I can write the numeral that matches a given set (number of objects) from 11-20. (Q3)</p>
<p>K.WCE.M.3 Recognize number words from 0-10. (Q1, Q2, Q3, Q4)</p>	<p>I can recognize number words 0-5. (Q1-2) I can recognize number words 6-10 (Q3-4)</p>
<p>K.WCE.M.4 Understand that each previous number name refers to a quantity that is one less. (Q1, Q2, Q3)</p>	<p>I can tell how many are in a group when an object is taken away (one less) without recounting. (Q1-3)</p>
<p>K.CC.B.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, a circle, or as many as 10 things in a scattered configuration. Given a number from 1-20, count out that many objects. (Q1, Q2, Q3)</p>	<p>I can count and record up to 5 objects arranged in different ways.(Q1) I can count out 5 objects when given a group of objects. (Q1) I can count and record up to 10 objects arranged in different ways. (Q2) I can count out 10 objects when given a group of objects. (Q2) I can count and record up to 20 objects arranged in different ways. (Q3) I can count out 20 objects when given a group of objects. (Q3)</p>
<p>K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.</p>	<p>I can compare the number of objects in two groups and tell whether they are greater than, less than, or equal to each other. (Q1-3)</p>

(Q1, Q2, Q3)	
<i>K.WCE.M.5 Recognize sets up to seven objects in patterned arrangements and tell how many without counting (subitizing). (Q1, Q2)</i>	<p>I can recognize a set up to 5 objects in patterned arrangements without counting. (dot cards, dice, etc). (Q1)</p> <p>I can recognize a set up to 7 objects in patterned arrangements without counting (dot cards, dice, etc). (Q2)</p>

2022.23, Grade Kindergarten, Mathematics, Quarter 2

Content Standards	Student Friendly "I Can" Statements
<p><i>K.WCE.M.1 Demonstrate the use of a calendar as a way of measuring units of time and understanding numerical patterns. (Q1, Q2, Q3, Q4)</i></p>	<p>I can use a calendar to tell the day and date. (Q1 -2) I can identify patterns in a calendar and understand the calendar is set up in columns and rows.(Q2) I can use a calendar to identify yesterday, today, and tomorrow based on a given day of the week. (Q3-4) I can tell that yesterday comes before today and tomorrow comes after today. (Q3-4) 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.(Q4)</p>
<p><i>K.WCE.M.2 Name, copy, create, and extend patterns, and explain a simple rule for pattern. (Q1, Q2)</i></p>	<p>I can copy a given pattern. (Q1-2) I can extend a given pattern. (Q1-2) I can create a given pattern. (Q2)</p>
<p><i>K.CC.A.1 Count to 100 by ones, fives, and tens. Count backward from 10. (Q2, Q3)</i></p>	<p>I can count by ones, fives, and tens to 100. (Q2) I can count backwards by ones beginning with any number within 10. (Q3)</p>
<p><i>K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (Q2,Q3)</i></p>	<p>I can count on from a number other than one up to 20. (Q2) I can count on from a number other than one up to 50. (Q2-3) I can count on from a number other than one up to 100. (Q3)</p>
<p><i>K.CC.A.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20. (Q1, Q2,Q3)</i></p>	<p>I can write numbers from 0 to 5. (Q1) I can write the numeral that matches a given set (number of objects) from 0-5. (Q1) I can write numbers from 6 to 10. (Q2) I can write the numeral that matches a given set (number of objects) from 6-10. (Q2)</p>

	<p>I can write numbers from 11 to 20. (Q3)</p> <p>I can represent a group of objects with a written numeral 0-20. (Q3)</p> <p>I can write the numeral that matches a given set (number of objects) from 11-20. (Q3)</p>
<i>K.WCE.M.3 Recognize number words from 0-10. (Q1, Q2, Q3, Q4)</i>	<p>I can recognize number words 0-5. (Q1-2)</p> <p>I can recognize number words 6-10 (Q3-4)</p>
<p>K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality. (Q1, Q2))</p> <p>a. When counting objects, say the number names in the standard order, using one-to-one correspondence.</p> <p>b. Recognize that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.</p> <p>c. Recognize that each successive number name refers to a quantity that is one greater.</p>	<p>I can count objects in a group correctly.</p> <p>I can tell “how many” are in a group after counting all the objects.</p> <p>I can explain my counting strategy.</p> <p>I can recognize that when I count objects the last number I say is the total number of objects.</p> <p>I can demonstrate that the number of objects does not change when the objects are moved or rearranged.</p> <p>I can tell how many are in a group when one more object is added, without recounting.</p> <p>I can explain my counting strategy.</p>
<i>K.WCE.M.4 Understand that each previous number name refers to a quantity that one less. (Q1, Q2, Q3))</i>	I can tell how many are in a group when an object is taken away (one less) without recounting. (Q1-3)
K.CC.B.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, a circle, or as many as 10 things in a scattered configuration. Given a number from 1-20, count out that many objects. (Q1, Q2, Q3)	<p>I can count and record up to 5 objects arranged in different ways.(Q1)</p> <p>I can count out 5 objects when given a group of objects. (Q1)</p> <p>I can count and record up to 10 objects arranged in different ways. (Q2)</p> <p>I can count out 10 objects when given a group of objects. (Q2)</p> <p>I can count and record up to 20 objects arranged in different ways. (Q3)</p>

	I can count out 20 objects when given a group of objects. (Q3)
<i>K.WCE.M.5 Recognize sets up to seven objects in patterned arrangements and tell how many without counting (subitizing). (Q1, Q2)</i>	I can recognize a set up to 5 objects in patterned arrangements without counting. (dot cards, dice, etc). (Q1) I can recognize a set up to 7 objects in patterned arrangements without counting. (dot cards, dice, etc). (Q2)
<i>K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. (Q1, Q2, Q3)</i>	I can compare the number of objects in two groups and tell whether they are greater than, less than, or equal to each other. (Q1-3)
K.CC.C.7 Compare two given numbers up to 10, when written as numerals, using the terms <i>greater than, less than, or equal to</i> . (Q2, Q3)	I can use the terms <i>greater than, less than, and equal to</i> to compare numbers. I can use the correct symbol $>$, $<$, or $=$ when comparing two numbers between 0 and 10.
K.OA.A.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations. (Drawings need not show details, but should show the mathematics in the problem.)	I can demonstrate addition using objects, fingers, sounds (e.g. claps), acting out situations, or various tools. I can explain addition (putting together and adding to). I can explain subtraction (taking apart and taking from). I can show addition and subtraction using expressions or equations. I can identify the mathematical symbols used to show addition and subtraction. I can subtract by counting backwards or by counting up.
K.OA.A.2 Add and subtract within 10 to solve contextual problems using objects or drawings to represent the problem.	I can solve addition word problems within 10 by using objects or drawings to represent the problem. I can solve subtraction word problems within 10 by using objects or drawings to represent the problem.

	I can solve addition and subtraction word problems by counting forwards or backwards.
K.OA.A.3 Decompose numbers less than or equal to 10 into addend pairs in more than one way (e.g., $5 = 2 + 3$ and $5 = 4 + 1$) by using objects or drawings. Record each decomposition using a drawing or writing an equation. (Q1, Q2)	I can decompose (break apart) numbers to 10 using objects or drawings. I can record the answer using a drawing or writing an equation.
K.OA.A.4 Find the number that makes 10, when added to any given number, from 1 to 9 using objects or drawings. Record the answer using a drawing or writing an equation.	I can add a number to another number to make the sum of 10 and can illustrate that with a drawing, objects, or by writing an equation.
*K.OA.A.5 Fluently add and subtract within 10 using mental strategies. (Q2-4)	I can fluently add and subtract numbers up to <u>five</u> mentally with equation algorithm, or missing addend situations. (Q2) I can fluently add and subtract numbers up to 10 using equations, an algorithm, or missing addend situations. (Q3-4)

2022.23, Kindergarten, Mathematics, Quarter 3

Content Standards	Student Friendly "I Can" Statements
<p><i>K.WCE.M.1 Demonstrate the use of a calendar as a way of measuring units of time and understanding numerical patterns. (Q1, Q2, Q3, Q4)</i></p>	<p>I can use a calendar to tell the day and date. (Q1 -2) I can identify patterns in a calendar and understand the calendar is set up in columns and rows. (Q2) I can use a calendar to identify yesterday, today, and tomorrow based on given day of the week. (Q3-4) I can tell that yesterday comes before today and tomorrow comes after today. (Q3-4) 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. (Q4)</p>
<p>K.MD.B.3 Identify coins and recognize the value of each. (<i>Identify the penny, nickel, dime, and quarter and recognize the value of each.</i>) (Q3, Q4) <i>The addition of this TN State Standard causes the standards to shift in domain and cluster.</i></p>	<p>I can select an indicated coin from a collection of coins. I can name a given coin. I can state the value associated with each coin; penny, nickel, dime, quarter I can describe the relationship among coins. (e.g. 10 pennies=1 dime)</p>
<p>K.NBT.A.1 Compose and decompose numbers from 11 to 19 into ten ones and some more ones by using objects or drawings. Record the composition or decomposition using a drawing or by writing an equation.</p>	<p>I can compose (put together) numbers 11-19 using a ten and some ones using objects (ex: using a ten frame/double ten frame). I can compose (put together) numbers 11-19 with tens and ones and show my work with a drawing or equation. I can decompose (break apart) numbers 11-19 using a ten and some ones using objects (ex: using a ten frame/double ten frame). I can decompose (break apart) numbers 11-19 using a ten and some ones and show my work with a drawing or by writing an equation.</p>
<p>K.CC.A.1 Count to 100 by ones, fives, and tens. Count backward from 10. (Q2, Q3)</p>	<p>I can count by ones, fives, and tens to 100. (Q2)</p>

	I can count backwards by ones beginning with any number within 10. (Q3)
K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (Q2,Q3)	I can count on from a number other than one up to 20. (Q2) I can count on from a number other than one up to 50. (Q2-3) I can count on from a number other than one up to 100. (Q3)
K.CC.A.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20. (Q1, Q2,Q3,)	I can write numbers from 0 to 5. (Q1) I can write the numeral that matches a given set (number of objects) from 0 to 5. (Q1) I can write numbers from 6 to 10. (Q2) I can write the numeral that matches a given set (number of objects) from 6 to 10. (Q2) I can write numbers from 11 to 20. (Q3) I can represent a group of objects with a written numeral 0-20. (Q3) I can write the numeral that matches a given set (number of objects) from 11-20. (Q3)
K.WCE.M.3 Recognize number words from 0-10. (Q1, Q2, Q3, Q4)	I can recognize number words 0-5. (Q1-2) I can recognize number words 6-10 (Q3-4)
K.WCE.M.6 Given an ordered set of up to ten objects and/or pictures, indicate the ordinal position of each object (first-tenth).	I can give the ordinal position of a set of ten objects and/or pictures.
K.CC.B.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. (Q1, Q2, Q3)	I can count and record up to 5 objects arranged in different ways.(Q1) I can count out 5 objects when given a group of objects. (Q1) I can count and record up to 10 objects arranged in different ways. (Q2) I can count out 10 objects when given a group of objects. (Q2) I can count and record up to 20 objects arranged in different ways. (Q3)

	I can count out 20 objects when given a group of objects. (Q3)
<i>K.WCE.M.4 Understand that each previous number name refers to a quantity that one less. (Q1, Q2, Q3)</i>	I can tell how many are in a group when an object is taken away (one less) without recounting. (Q1-3)
<i>K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. (Q1, Q2, Q3)</i>	I can compare the number of objects in two groups and tell whether they are greater than, less than, or equal to each other. (Q1-3)
<i>K.CC.C.7 Compare two given numbers up to 10, when written as numerals, using the terms greater than, less than, or equal to. (Q2, Q3)</i>	I can use the terms <i>greater than</i> , <i>less than</i> , and <i>equal to</i> to compare numbers. I can use the correct symbol $>$, $<$, or $=$ when comparing two numbers between 0 and 10.
<i>K.G.A.2 Correctly name shapes regardless of their orientations or overall size. (Q3, Q4)</i>	I can correctly name two-dimensional shapes in any position or size. (Q3) I can identify a circle, square, triangle, rectangle, and hexagon. (Q3) I can correctly name three-dimensional shapes in any position or size. (Q4) I can identify a cube, cone, cylinder, and sphere. (Q4)
<i>K.G.B.4 Describe similarities and differences between two- and three-dimensional shapes, in different sizes and orientations. (Q3, Q4)</i>	I can compare and contrast flat shapes and solid shapes using words to describe their attributes, including the number of sides, length of sides and vertices. Use informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
<i>K.G.B.6 Compose larger shapes using simple shapes and identify smaller shapes within a larger shape. (Q3 only)</i>	I can identify smaller shapes within a larger shape (using two dimensional and three dimensional shapes). I can combine small shapes to create larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”

***K.OA.A.5** *Fluently add and subtract within 10 using mental strategies. (Q2-4)*

I can fluently add and subtract numbers up to ten mentally with equations, algorithm, or missing addend situations. (Q3)

I can fluently add and subtract numbers up to 10 using equations, algorithm or missing addend situations. (Q3-4)

2022.23, Kindergarten, Mathematics, Quarter 4

Content Standards	Student Friendly “I Can” Statements
<p><i>K.WCE.M.1 Demonstrate the use of a calendar as a way of measuring units of time and understanding numerical patterns. (Q1, Q2, Q3, Q4)</i></p>	<p>I can use a calendar to tell the day and date. (Q1 -2) I can identify patterns in a calendar and understand the calendar is set up in columns and rows. (Q2) I can use a calendar to identify yesterday, today, and tomorrow based on a given day of the week. (Q3-4) I can tell that yesterday comes before today and tomorrow comes after today. (Q3-4) 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. (Q4)</p>
<p><i>K.WCE.M.3 Recognize number words from 0-10. (Q1, Q2, Q3, Q4)</i></p>	<p>I can recognize number words 0-5. (Q1-2) I can recognize number words 6-10 (Q3-4)</p>
<p><i>K.G.B.4 Describe similarities and differences between two- and three-dimensional shapes, in different sizes and orientations. (Q3, Q4)</i></p>	<p>I can compare and contrast flat shapes and solid shapes using words to describe their attributes, including the number of sides, length of sides and vertices. Use informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).</p>
<p><i>K.G.A.2 Correctly name shapes regardless of their orientations or overall size. (Q3, Q4)</i></p>	<p>I can correctly name two-dimensional shapes in any position or size. (Q3) I can identify a circle, square, triangle, rectangle, and hexagon. (Q3) I can correctly name three-dimensional shapes in any position or size. (Q4) I can identify a cube, cone, cylinder, and sphere. (Q4)</p>
<p><i>K.G.A.3 Identify shapes as two-dimensional or three-dimensional.</i></p>	<p>I can sort and identify shapes as flat or solid. (lying in a plane, “flat” or three-dimensional “solid”).</p>

K.G.B.5 Model shapes in the world by building and drawing shapes.	I can apply my understanding of shapes to model and draw objects in my world. I can create shapes from components (e.g., sticks and clay balls).
K.G.A.1 Describe objects in the environment using names of shapes. Describe the relative positions of these objects using terms such as <i>above, below, beside, in front of, behind, between, and next to</i> .	I can describe objects and their position. I can recognize and name shapes in my environment. I can use terms such as above, below, beside, in front of, behind, and next to.
K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has more of/less of the attribute, and describe the difference. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i>	I can compare how two objects are alike. I can contrast the differences of two objects such as taller/shorter, longer/shorter, lighter/heavier, or which holds more or less.
K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	I can describe an object by length, width, height, and weight.
K.MD.C.4 Sort a collection of objects into a given category, with 10 or less in each category. Compare the categories by group size.	I can classify, sort, and compare a variety of objects into categories and count them. (Q4) (Limit category counts to be less than or equal to 10.)
K.MD.B.3 Identify coins and recognize the value of each. (<i>Identify the penny, nickel, dime, and quarter and recognize the value of each.</i>) (Q3, Q4))	I can select an indicated coin from a collection of coins. I can name a given coin. I can state the value associated with each coin; penny, nickel, dime, quarter. I can describe the relationship among coins. (e.g., 10 pennies=1 dime)
K.WCE.M.7 Identify items of objects that come in pairs.	I can identify a pair as two things that go together.
K.WCE.M.8 Use data to create a bar graph, pictograph, and table.	I can represent data on an individual bar graph, pictograph, and table.
K.WCE.M.9 Recognize the time of day as morning, afternoon, or evening.	I can recognize the time of day as morning, afternoon, or evening.
K.WCE.M.10 Identify the fractions $\frac{1}{2}$ and 1 whole.	I can identify the fractions $\frac{1}{2}$ and 1 whole in everyday objects and shapes.

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 1

<p>* K.OA.A.5 Fluently add and subtract within 10 using mental strategies. (Q2-4)</p>	<p>I can fluently add and subtract numbers up to <u>20</u> mentally. (Q4)</p> <p>I can fluently add and subtract numbers up to ten mentally equations, algorithm, or missing addend situations. (Q3-4)</p>	<p style="text-align: center;"><u>Getting Ready for Grade 1</u> <u>Lesson 9</u></p> <p>Game: Dominoes</p>