



Marietta City Schools
District Unit Planner

Kindergarten

Unit Name *Unit 1: Wondering About My World and Investigating to Find Answers*

Unit Duration

4-5 Weeks

[GA K-12 Standards](#)

In this unit, students will explore how numbers up to 10 are used to explain the quantity of objects in their world. Through multiple opportunities to count various objects, they will identify written numerals to represent a given set of objects up to 10. Students will begin learning to rote count to 100 forward and backward from 20. Based on their curiosity and interests, students will generate questions to investigate situations. They will collect data to answer the questions they generated and represent and explain their data.

K.NR.1 Demonstrate and explain the relationship between numbers and quantities up to 20*; connect counting to cardinality (the last number counted represents the total quantity in a set). **Students will only work with numbers up to 10 in this unit.*

- **K.NR.1.1** Count up to 20 objects in a variety of structured arrangements and up to 10 objects in a scattered arrangement.
- **K.NR.1.2** When counting objects, explain that the last number counted represents the total quantity in a set (cardinality), regardless of the arrangement and order.

K.NR.2 Use count sequences within 100 to count forward and backward in sequence.

- **K.NR.2.1** Count forward to 100 by tens and ones and backward from 20 by ones.

K.NR.4 Identify, write, represent, and compare numbers to 20.

- **K.NR.4.1** Identify written numerals 0-20 and represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

K.MDR.7 Observe, describe, and compare the physical and measurable attributes of objects.

- **K.MDR.7.3** Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

K.MP.1-8 Display perseverance and patience in problem-solving. Demonstrate skills and strategies needed to succeed in mathematics, including critical thinking, reasoning, and effective collaboration and expression. Seek help and apply feedback. Set and monitor goals. *(It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.)*

- **K.MP.1** Make sense of problems and persevere in solving them.
- **K.MP.2** Reason abstractly and quantitatively.
- **K.MP.3** Construct viable arguments and critique the reasoning of others.
- **K.MP.4** Model with mathematics.
- **K.MP.5** Use appropriate tools strategically.

- **K.MP.6** Attend to precision.
- **K.MP.7** Look for and make use of structure.
- **K.MP.8** Look for and express regularity in repeated reasoning.

The [Framework for Statistical Reasoning](#) and the [Mathematical Modeling Framework](#) should be taught throughout the units. The [K-12 Mathematical Practices](#) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

Essential Questions/ I CAN Statements

- (K.NR.1) I can use pictures and graphical displays to answer questions and solve problems in my everyday life. I can count forward and backwards from 10 by ones.
- (K.NR.2) I can count number sequences to count forwards and backwards to 100.
- (K.NR.4) I can identify, write, represent, and compare numbers up to 20.
- (K.MDR.7) I can ask questions about the things I see and want to know more about.
- (K.MDR.7) I can gather information to answer questions about things in my everyday life.
- (K.MDR.7) I can use pictures and graphical displays to answer questions and solve problems in my everyday life.

Tier II Vocabulary Words- High Frequency Multiple Meaning

Backward, compare, count, different, object

Tier III Vocabulary Words- Subject/ Content Related Words

Cardinality, data, dot cube, number, number cube, number path, numeral, one-to-one correspondence, rekenrek
[K-12 Mathematics Glossary](#)

Assessments

- [MCS K-5 Activity & Assessment Collection](#)
- K.NR.1 [MCS Mini](#)
- K.NR.1, 2 [MCS Mini](#)
- K.NR.1, 2, 3 [MCS Mini](#)
- K.NR.4 [MCS Mini](#)
- MIP Module 3 Formative Assessment, p. 58
- MIP Module 3 Formative Assessment, p. 65

It is the responsibility of each schools' grade level PLC to identify appropriate instructional lessons and resources, based on data and student needs, using the suggested pacing duration. The following learning tasks have been vetted to align to the standards included in this unit. The GA Dept. of Education strongly recommends that any additional tasks, resources, and/or assessments used for instruction should be vetted using the [Quality Assurance Rubric](#), to ensure alignment to the state standards.

Objective or Content	Learning Experiences Menu	Differentiation Considerations
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<p>K.NR.1 Demonstrate and explain the relationship between numbers and quantities up to 20*; connect counting to cardinality (the last number counted represents the total quantity in a set). <i>*Students will only work with numbers up to 10 in this unit.</i></p>	<p style="text-align: center;"><u>GA DOE Learning Plans</u></p> <p><u>Investigating Counting</u> <i>*Also includes K.NR.2 and K.NR.4</i> <i>In this learning plan, Kindergarten students practice subitizing numbers 0-5, identify and write numerals 0-9, count dots, and count objects to ten. Students practice counting forward and backward as they participate in a variety of tasks. (Suggested Timeframe: 4-5 days)</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Blackline Masters <p><u>Numbers and Pictures</u> <i>*Also includes K.NR.2 and K.NR.4</i> <i>In this learning plan, Kindergarten students can engage in different representations of numbers. (Suggested Timeframe: 2-3 days)</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Reproducibles ● Blackline Masters <p><u>Counting with Friends</u> <i>*Also includes K.NR.2 and K.NR.4</i> <i>In this learning plan, Kindergarten students will engage in counting and using the different representations of numbers. (Suggested Timeframe: 2-3 days)</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Reproducibles <p><u>Using a Rekenrek</u> <i>*Also includes K.NR.2 and K.NR.4</i> <i>In this learning plan, Kindergarten students will create their own rekenrek and explore how a rekenrek can be used to represent numbers. Students will be able to name numbers represented on the rekenrek as well as represent numbers in multiple ways on the rekenrek. (Suggested Timeframe: 1-2 days)</i> Teacher Guidance</p>	<p style="text-align: center;"><u>MCS Curriculum Resources</u></p> <p><u>SAVVAS enVision Topic 1: Numbers 0 to 5</u> <i>Students develop a fundamental understanding of number names, the counting sequence, and written numerals.</i></p> <ul style="list-style-type: none"> ● Lesson 1-1: Count 1,2,3 ● Lesson 1-2: Recognize 1,2 and 3 in Different Arrangements ● Lesson 1-4: Count 4 and 5 ● Lesson 1-5: Recognize 4 and 5 in Different Arrangements <p><u>MIP Module 1: Numbers 1-5</u> <i>The key ideas focused on in this module include counting up to 5 objects, saying 1 number name as each object is touched, and naming the total objects in a group of up to 5 objects (in different configurations).</i></p> <ul style="list-style-type: none"> ● Five Frame Stickers, p.15 ● Number Cups, p. 17-18 ● Number Bracelets, p. 19 ● Counting Different Arrangements of Dot Cards, p. 23-24 ● Arrange the Buttons, p. 25 ● Paint Numbers, p. 30 ● Climb to the Top, p. 30 <p><u>SAVVAS enVision Topic 3: Numbers 6 to 10</u> <i>Students extend their understanding of number names, the counting sequence, and written numerals to 10</i></p> <ul style="list-style-type: none"> ● Lesson 3-1: Count 6 and 7 ● Lesson 3-3: Count 8 and 9 ● Lesson 3-5: Count 10 ● Lesson 3-7: Count Numbers to 10 <p><u>MIP Module 2: Numbers 0-10</u> <i>The key ideas focused on in this module include using counting and sliding strategies to count up to 10 objects in different configurations, and recognizing and writing the written numerals 0–10.</i></p> <ul style="list-style-type: none"> ● Show Me, p. 39-40 	<p>Birthday Cake: Count, identify and form groups of items to 10.</p> <p>Flower Petals: Count, form and identify all the numbers of a set of objects in the range 0-10.</p> <p>Feed the Elephants: Count, identify and form a set of objects in the range 1-10.</p> <p>How Many Cubes? Count a set of objects in the range 1-10.</p> <p>Match It Up: Count, form and identify all the numbers of a set of objects in the range 0-10.</p> <p>Ten Frames Matching Game Know groupings of five, within ten, and with ten.</p>
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<p>K.NR.2 Use count sequences within 100 to count forward and backward in sequence.</p>	<p><u>GADOE Learning Plan: Counting Forward from 0 to 10 and Backward from 10 to 0</u> <i>In this learning plan, Kindergarten students will practice counting backward from 10 by ones.</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Blackline Master 	<p>Number Line Flips: Order and say the forwards and backwards number word sequences in the range 0-10, 0-20.</p> <p>Clapping: Say the forwards and backwards number word sequence in the range 0-10, 0-20, 0-100.</p>
<p>K.NR.4 Identify, write, represent, and compare numbers to 20.</p>	<p><u>SAVVAS enVision Topic 1: Numbers 0 to 5</u> <i>Students develop a fundamental understanding of number names, the counting sequence, and written numerals.</i></p> <ul style="list-style-type: none"> • Lesson 1-3: Read, Make, and Write 1, 2, and 3 • Lesson 1-6: Read, Make, and Write 4 and 5 • Lesson 1-7: Identify the Number 0 • Lesson 1-8: Read and Write 0 • Lesson 1-9: Numbers to 5 <p><u>SAVVAS enVision Topic 3: Numbers 6 to 10</u> <i>Students extend their understanding of number names, the counting sequence, and written numerals to 10</i></p> <ul style="list-style-type: none"> • Lesson 3-2: Read, Make, and Write 6 and 7 • Lesson 3-4: Read, Make, and Write 8 and 9 • Lesson 3-6: Read, Make, and Write 10 <p><u>MIP Module 1: Numbers 1-5</u> <i>The key ideas focused on in this module include counting up to 5 objects, saying 1 number name as each object is touched, and naming the total objects in a group of up to 5 objects (in different configurations).</i></p> <ul style="list-style-type: none"> • Climb to the Top, p. 30 • Paint Numbers, p. 30 <p><u>MIP Module 2: Numbers 0-10</u> <i>The key ideas focused on in this module include using counting and sliding strategies to count up to 10 objects in different configurations, and recognizing and writing the written numerals 0–10.</i></p> <ul style="list-style-type: none"> • Zero is the Leaves on a Tree, p. 41-42 • Ten Frame Match Center, p. 44-45 <p>Playdough Numbers Students choose a number card, make small playdough balls to match the amount on a ten-frame, and then use playdough to</p>	<p>Counting as We Go: Form a set of objects and identify all the numbers in the range 0-10.</p> <p>Caterpillar Legs: Identify numbers 0-20. Count, order, and form groups of items to 10.</p>

	<p>create the numeral.</p> <p>Bags of Stuff</p> <p>The purpose of this task is to give students an opportunity to count real objects and write numbers.</p>	
<p>K.MDR.7 Observe, describe, and compare the physical and measurable attributes of objects.</p>	<p><u>GADOE Learning Plan: Sink or Float: Investigative Research</u> <i>*Also includes K.NR.1, K.NR.2, and K.NR.4</i> <i>In this learning plan, Kindergarten students will engage in investigative research to make sense of items in the environment around them and whether they sink or float. Students will use counting strategies to model with mathematics in the context of physical science. (Suggested Timeframe: 2-3 days)</i></p> <ul style="list-style-type: none"> • Teacher Guidance <p><u>GADOE Learning Plan: Using Numbers to Answer Questions About Our Environment</u> <i>In this learning plan, Kindergarten students will investigate numbers by asking questions about themselves and phenomena they experience in their environment. Students will generate questions to investigate situations and they will use their knowledge of counting and numeral recognition to collect data and answer questions as well as represent and explain their data. (Suggested Timeframe: 5-7 days)</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Reproducibles • Blackline Masters 	

Content Resources

GA DOE Links:

- [GA DOE Grade K Unit 1: Wondering About My World and Investigating to Find Answers](#)
- [GA DOE Grade K Comprehensive Grade Level Overview](#)
- [GA DOE Kindergarten Guide for Effective Mathematics Instruction](#)
- [K-5 Georgia Mathematics Strategies Toolkit](#)
- [Mathematics to Support English Language Learners](#)
- [Georgia Numeracy Project](#)
- [K-12 Mathematical Modeling Framework](#)
- [K-12 Statistical Reasoning Framework](#)
- [K-12 Mathematical Practices](#)

Additional Resources:

- Subitizing Tools: Dot cards, Five frames, ten-frames, rekenreks, dominoes, beads, rocks, counting bears, pennies, and playing cards
- Counting Tools: number lines, number paths, 99-chart, 100-chart
- Envision: Counting & Cardinality in Kindergarten (TE p. F44-F45)
- [Splat 1.1](#)
- [Splat 1.2](#)
- [Splat 1.3](#)
- [Splat 1.4](#)
- [Splat 1.5](#)
- [Same or Different? Quantities to 5](#)
- [Same or Different? Quantities to 10](#)
- [Primary Number Talk 0-10](#)
- [Which One Doesn't Belong?](#)