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Kindergarten

Unit Name	*Unit 3:* *How Many? Numbers Up to Twenty*	Unit duration (Days)	*5-6 weeks*

GA K-12 Standards

*In this unit, students will extend the work with numbers and quantities as they **explore and count sets of objects up to 20**. They will begin to explore sets up to 20 as they see the numbers as 10 and some more. They will use numerals 0 - 20 to represent the number of objects and be able to count out a given number of objects. Students will compare two sets of objects using the phrases "greater than," "less than", or "the same as." When given a number 1-20, they will be able to say the number that is one more than or one less than the number. They will count forward to 100 by ones, and backward from 20. In order to see the sequence in counting by tens, students will count to 50 by tens. Students will identify pennies, nickels, and dimes and know their value. They will ask questions and answer them as they explore coins.*

K.NR.1 Demonstrate and explain the relationship between numbers and quantities up to 20; connect counting to cardinality (the last number coined represents the total quantity in a set).
- **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.1.3** Given a number from 1-20, identify the number that is one more or one less.
- **K.NR.1.4** Identify pennies, nickels, and dimes and know their name and value.

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.3 Use place value understanding to compose and decompose numbers from 11-19.
- **K.NR.3.1** Describe numbers from 11 to 19 by composing (putting together) and decomposing (breaking apart) the numbers into ten ones and some more ones.

K.NR. 4 Identify, write, represent, and compare numbers up 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.NR.4.2** Compare two sets of up to 10 objects and identify whether the number of objects in one group is more or less than the other group, using the words "greater than," "less than," or "the same as".
  Note: Symbols for "greater than," "less than," or "the same as" will be introduced appropriately in first grade and are not an expectation in kindergarten.

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K.MDR.7: Observe, describe, and compare the physical and measurable attributes of objects and analyze graphical displays of data.
- **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.

<u>**K.MP.1-8**</u> **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.

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.1.1) I can count up to 20 objects in a linear or structured arrangement.
- (K.NR.1.2) I can count up to 10 objects in a scattered arrangement.
- (K.NR.1.3) I can explain that the last number counted represents the quantity regardless of the arrangement.
- (K.NR.1.4) I can identify pennies, nickels, and dimes and know their name and value.
- (K.NR.2.1) I can count forward to 100 by 10s and 1's.
- (K.NR.2.1) I can count backwards from 20 by 1's.
- (K.NR.4.1) I can identify written numerals 0-20.
- (K.NR.4.1) I can represent a number of objects with a written numeral from 0-20.
- (K.NR.4.2) I can compare two sets of up to 10 objects.
- (K.NR.4.2) I can identify whether the number of objects in one group is more or less than the other group using the words "greater than," "less than," or "the same as."

Tier II Vocabulary Words- High Frequency Multiple Meaning	**Tier III Vocabulary Words-** Subject/ Content Related Words
backward, compare, contrast, nickels, pennies, dimes, sum, group, set, order, silver, copper, choral, counting up, counting down, number path, cardinality, numeral, one-to-one correspondence, data	scattered, linear, quantity, cents, currency, ridges, quantity, subitize

Assessments

Formative Assessment(s):

- [Unit 3 Common Formative Assessment](#)
- [MCS K-5 Activity & Assessment Collection](#)
- [NR.4.1 Mini Assessment - Write Numbers 1-20](#)
- [NR.4.2 Mini Assessment - Compare Numbers](#)
- NR.1 MIP Module 3 Formative Assessment p.58
- NR.3 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
K.NR.1 Demonstrate and explain the relationship between numbers and quantities up to 20; connect counting to cardinality (the last number coined represents the total quantity in a set).	**GA DOE Learning Plans** **Coins in Our Environment** ***Includes K.NR.1, K.NR.1.1, K.NR.1.2, K.NR.1.4*** *In this learning plan, students will identify the name and the value of coins focusing on attributes such as president names, smooth ridges, silver, copper, green, etc. The value of coins can be expressed with or without symbols. (Suggested time frame: 2-3 days)* - **Teacher Guidance** - **Student Reproducibles**	**MCS Curriculum Resources** **SAVVAS enVison Topic 9: Count Numbers to 20** *Students extend their understanding of the counting sequence to 20.* - Lesson 9-1: Count, Read, and Write 11 and 12 - Lesson 9-2: Count, Read, and Write 13, 14, and 15 - Lesson 9-3: Count, Read, and Write 16 and 17 - Lesson 9-4: Count, Read, and Write 18, 19, and 20 - Lesson 9-5: Count Forward from Any Number to 20 - Lesson 9-6: Count to Find How Many - Lesson 9.7: Problem Solving Reasoning	Birthday Cake: Count, identify and form groups of items to 10. Flower Petals: Count, form and identify all the numbers of a set of objects in the range 0-10. Feed the Fish: Count, identify and form a set of objects in the range 1-10. How Many Cubes?:

			Count a set of objects in the range 1-10.
		MIP Module 3: Counting and Cardinality and Place Value: Numbers 0-20 *The key ideas focused on in this module include: counting and naming the number of objects in a group of 20 or fewer recognizing and writing the written numerals to 20 recognizing that 11–19 are 10 and 1, 2, 3, 4, 5, 6, 7, 8, or 9 more. Many activities not listed on planner. Use professional judgment to determine which activities need to be used.* ● Introducing Numbers 11-20, p.55 ● Counting Arrangements p. 56 ● Which Number, p. 57 ● 20 Big Trucks in the Middle of the Street, p. 58 ● Ten and Some More In A Ten Frame, p. 60 ● Double 10 Frame p. 64	Match It Up: Count, form and identify all the numbers of a set of objects in the range 0-10.
K.NR. 2 Use count sequences within 100 to count forward and backward in sequence.	**Counting Routines** ***Also includes K.NR.2.1** *In this learning plan, students will engage in a variety of activities that allow them to practice counting forward and backward. (Suggested time frame: 1-2 days)* ● **Teacher Guidance** ● **Student Reproducibles**	**MIP Module 4: Counting Forward and Backward from Any Given Number** The key ideas focused on in this module include counting to 100 by ones, counting to 100 by tens, and counting beginning at any number. ● Build a Class Hundred Chart, p.82 ● Count From a Number on a Hundred Chart, p.95 ● Missing Numbers, p.95 ● Counting On From a Number in a Circle, p.96	Number Line Flips: Order and say the forwards and backwards number word sequences in the range 0-10, 0-20. Clapping: Say the forwards and backwards number word sequence in the range 0-10, 0-20, 0-100.
K.NR. 4 Identify, write, represent, and compare numbers up to 20.	**Teen Numbers -** ***Also includes K.NR.1, K.NR.3, K.NR.4** *In this learning plan, students will explore how numbers 11-19 are composed of a set of 10 and some more ones. Students will explore different ways to compose and decompose these numbers*	**SAVVAS enVison Topic 10: Compose and Decompose Numbers 11-19** *Students compose and decompose numbers from 11-20 into tens and some further ones to build a foundation for understanding place value.*	Counting As We Go: Form a set of objects and identify all the numbers in the range

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to begin to develop their understanding of place value.
(Suggested time frame: 3-4 days)

- **Teacher Guidance**
- **Student Reproducibles**

Teen Counting Collections-
Also includes K.NR.1, K.NR.3, K.NR.4
In this learning plan, students will count collections of objects that range from 11-19. (Suggested time frame: 1-2 days)

- **Teacher Guidance**
- **Student Reproducibles**

Comparing Numbers -
Also includes K.NR.1, K.NR.1.1, K.NR.4
In this learning plan, students will continue working with numbers and quantities as they compare two sets of objects using the phrases "greater than," less than", or "the same as." Students will also compare two numbers from 0 to 10 to determine if one number is "greater than", less than", or "the same as" a second number. (Suggested time frame: 3-5 days)

- **Teacher Guidance**
- **Student Reproducibles**

Peas in a Pod
Also includes K.NR.1, K.NR.3, K.NR.4
In this learning plan, students will explore and represent numbers 10-19 through context and exploration of a 3-Act Task. (Suggested time frame: 1-2 days)

- **Teacher Guidance**
- **Student Reproducibles**

- Lesson 10-1: Make 11, 12, 13
- Lesson 10-2: Make 14, 15, 16
- Lesson 10-3: Make 17, 18, 19
- Lesson 10-4: Find Parts of 11, 12, and 13
- Lesson 10-5: Find Parts of 14, 15, 16
- Lesson 10-6: Find Parts of 17, 18, 19

MIP Module 3: Talk About It/ Write About it
The key ideas focused on in this module include: counting and naming the number of objects in a group of 20 or fewer recognizing and writing the written numerals to 20 recognizing that 11–19 are 10 and 1, 2, 3, 4, 5, 6, 7, 8, or 9 more. Many activities not listed on planner. Use professional judgment to determine which activities need to be used.

- May I Have Some More?, p. 63
- Number Tents, p. 67
- Ordering Numbers, p. 73
- How Many?, p. 78
- Making Writing Numbers Fun, p. 79

0-10.

Caterpillar Legs: Identify numbers 0-20. Count, order and form groups of items to 10.

Comparing Small Collections: Compare two sets in the range 0 – 10.

Content Resources	
MCS Links: ● MCS Math GRK Curriculum Map ● MCS Math Instructional Framework **GA DOE Links:** *Access all GADOE Curriculum Resources at the following site: https://inspire.gadoe.org.*	**Additional Resources:** ● Number Corner or Calendar Time ● Number Talks ● Estimation Activities/Estimation 180 ● Which One Doesn't Belong? ● Same or Different? ● Splat!