

# Mathletics

## Georgia Mathematics Standards Activities



Grades K-2  
September 2023

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Activities

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# Kindergarten

## Numerical Reasoning

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).

<b>K.NR.1.1</b> Count up to 20 objects in a variety of structured arrangements and up to 10 objects in a scattered arrangement.	
<b>Course Topic</b>	<b>Activities Title</b>
K.NR.1 - Number within 20	Count to 5
	How Many?
	Dot Display
	Counting Up to 20

<b>K.NR.1.2</b> When counting objects, explain that the last number counted represents the total quantity in a set (cardinality), regardless of the arrangement and order.	
<b>Course Topic</b>	<b>Activities Title</b>
K.NR.1 - Number within 20	Dot Display
	How Many Dots?

<b>K.NR.1.3</b> Given a number from 1-20, identify the number that is one more or one less.	
<b>Course Topic</b>	<b>Activities Title</b>
K.NR.1 - Number within 20	More, Less or the Same to 20
	Before, After and Between to 20

<b>K.NR.1.4</b> Identify pennies, nickels, and dimes and know their name and value	
<b>Course Topic</b>	<b>Activities Title</b>
K.NR.1 - Number within 20	Everyday Money

**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.	
Course Topic	Activities Title
Teacher directed	Teacher directed

K.NR.2.2	
Count forward beginning from any number within 100 and count backward from any number within 20.	
Course Topic	Activities Title
K.NR.2 - Counting within 100	Counting Back Within 20
	Counting Forwards
	Going Up
	Order Numbers to 10
	Order Numbers to 20

**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.	
Course Topic	Activities Title
K.NR.3 - Place value	Making Teen Numbers

**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).	
Course Topic	Activities Title
K.NR.4 - Represent & Compare to 20	Concept of Zero

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	
Course Topic	Activities Title
K.NR.4 - Represent & Compare to 20	More, Less or the Same to 10

**Explain the concepts of addition, subtraction, and equality and use these concepts to solve real-life problems within 10.**

<b>K.NR.5.1</b> Compose (put together) and decompose (break apart) numbers up to 10 using objects and drawings.	
<b>Course Topic</b>	<b>Activities Title</b>
K.NR.5 - Add & Subtract	Model Addition
	Adding to Make 5 and 10
	Make Numbers Count

<b>K.NR.5.2</b> Represent addition and subtraction within 10 from a given authentic situation using a variety of representations and strategies.	
<b>Course Topic</b>	<b>Activities Title</b>
K.NR.5 - Add & Subtract	All about Ten

<b>K.NR.5.3</b> Use a variety of strategies to solve addition and subtraction problems within 10.	
<b>Course Topic</b>	<b>Activities Title</b>
K.NR.5 - Add & Subtract	All about Ten
	Adding to Ten
	Subtracting from Ten

<b>K.NR.5.4</b> Fluently add and subtract within 5 using a variety of strategies to solve practical, mathematical problems.	
<b>Course Topic</b>	<b>Activities Title</b>
K.NR.5 - Add & Subtract	Adding to 5
	Subtracting From 5

## Patterning & Algebraic Reasoning

Explain, extend, and create repeating patterns with a repetition, not exceeding 4 and describe patterns involving the passage of time.

K.PAR.6.1	
Create, extend, and describe repeating patterns with numbers and shapes, and explain the rationale for the pattern.	
Course Topic	Activities Title
K.PAR.6 - Patterns	Simple Patterns
	Complete the Pattern

K.PAR.6.2	
Describe patterns involving the passage of time using words and phrases related to actual events.	
Course Topic	Activities Title
K.PAR.6 - Patterns	Days of the Week
	Tomorrow and Yesterday (Scaffolded)

## Measurement & Data Reasoning

Observe, describe, and compare the physical and measurable attributes of objects and analyze graphical displays of data to answer relevant questions.

K.MDR.7.1	
Directly compare, describe, and order common objects, using measurable attributes (length, height, width, or weight) and describe the difference.	
Course Topic	Activities Title
K.MDR.7 - Measure	Same and Different
	Everyday Length

K.MDR.7.2	
Classify and sort up to ten objects into categories by an attribute; count the number of objects in each category and sort the categories by count.	
Course Topic	Activities Title
K.MDR.7 - Measure	Compare Length
	Which Holds More?
	Everyday Mass



<b>K.MDR.7.3</b>	
Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.	
<b>Course Topic</b>	<b>Activities Title</b>
K.MDR.7 - Measure	Picture Graphs: More or Fewer (USA)
	Read Graphs

## Geometric & Spatial Reasoning

Identify, describe, and compare basic shapes encountered in the environment, and form two-dimensional shapes and three-dimensional figures.

<b>K.GSR.8.1</b>	
Identify, sort, classify, analyze, and compare two- dimensional shapes and three-dimensional figures, in different sizes and orientations, using informal language to describe their similarities, differences, number of sides and vertices, and other attributes.	
<b>Course Topic</b>	<b>Activities Title</b>
K.GSR.8 - Shape & Space	Collect Simple Shapes
	Match the Solid 2

<b>K.GSR.8.2</b>	
Describe the relative location of an object using positional words	
<b>Course Topic</b>	<b>Activities Title</b>
K.GSR.8 - Shape & Space	Where is it?

<b>K.GSR.8.3</b>	
Use basic shapes to represent specific shapes found in the environment by creating models and drawings.	
<b>Course Topic</b>	<b>Activities Title</b>
K.GSR.8 - Shape & Space	Match the Solid 2

# Grade 1

## Numerical Reasoning

Course Topic	Activities Title
REVIEW 1.NR.1 - Number within 120	Count to 5
	How Many?
	Dot Display
	Counting Up to 20
	More, Less or the Same to 20
	Before, After and Between to 20
	Everyday Money

**Extend the count sequence to 120. Read, write, and represent numerical values to 120 and compare numerical values to 100.**

1.NR.1.1	
Count within 120, forward and backward, starting at any number. In this range, read and write numerals and represent a number of objects with a written numeral.	
Course Topic	Activities Title
1.NR.1 - Number within 120	Counting Forwards
	Counting Backwards
	Going Down
	1 to 30
	The Number Line

1.NR.1.2	
Explain that the two digits of a 2-digit number represent the amounts of tens and ones.	
Course Topic	Activities Title
1.NR.1 - Number within 120	Making Numbers Count
	Making Big Numbers Count

1.NR.1.3	
Compare and order whole numbers up to 100 using concrete models, drawings, and the symbols $>$ , $=$ , and $<$ . Compare and order whole numbers up to 100 using concrete models, drawings, and the symbols $>$ , $=$ , and $<$ .	
Course Topic	Activities Title
1.NR.1 - Number within 120	Compare Numbers to 50
	Compare Numbers to 100

	Greater or Less to 100
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Course Topic	Activities Title
REVIEW 1.NR.2 -Add & Subtract within 20	Concept of Zero
	More, Less or the Same to 10
	Adding to 5
	Subtracting From 5
	All about Ten
	Model Addition
	Adding to Make 5 and 10

**Explain the relationship between addition and subtraction and apply the properties of operations to solve real-life addition and subtraction problems within 20.**

1.NR.2.1 Use a variety of strategies to solve addition and subtraction problems within 20.	
Course Topic	Activities Title
1.NR.2 - Add & Subtract within 20	All about Twenty

1.NR.2.2 Use pictures, drawings, and equations to develop strategies for addition and subtraction within 20 by exploring strings of related problems.	
Course Topic	Activities Title
1.NR.2 - Add & Subtract within 20	Fact Families: Add and Subtract

1.NR.2.3 Recognize the inverse relationship between subtraction and addition within 20 and use this inverse relationship to solve authentic problems.	
Course Topic	Activities Title
1.NR.2 - Add & Subtract within 20	Adding In Any Order
	Fact Families: Add and Subtract

1.NR.2.4 Fluently add and subtract within 10 using a variety of strategies.	
Course Topic	Activities Title
1.NR.2 - Add & Subtract within 20	Adding to Make 5 and 10

<b>1.NR.2.5</b> Use the meaning of the equal sign to determine whether equations involving addition and subtraction are true or false.	
Course Topic	Activities Title
1.NR.2 - Add & Subtract within 20	Balancing Act
	Balance Numbers to 10/Composing numbers to 10
	Balance Numbers to 20/Composing Numbers to 20
	Balance Additions to 20/Composing additions to 20
	Repartition Two-digit Numbers

<b>1.NR.2.6</b> Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.	
Course Topic	Activities Title
1.NR.2 - Add & Subtract within 20	Add 3 Single Digit Numbers

<b>1.NR.2.7</b> Apply properties of operations as strategies to solve addition and subtraction problem situations within 20.	
Course Topic	Activities Title
1.NR.2 - Add & Subtract within 20	Adding to 10 Word Problems
	Doubles and Near Doubles
	Missing Numbers
	How much Change?

## Patterning & Algebraic Reasoning

Course Topic	Activities Title
REVIEW 1.PAR.3 - Patterns & Algebra	Simple Patterns
	Complete the Pattern

**Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns found in real-life situations.**

<b>1.PAR.3.1</b> Investigate, create, and make predictions about repeating patterns with a core of up to 3 elements resulting from repeating an operation, as a series of shapes, or a number string.	
Course Topic	Activities Title
1.PAR.3 - Patterns & Algebra	Pattern Error
	Missing it!

1.PAR.3.2	
Identify, describe, and create growing, shrinking, and repeating patterns based on the repeated addition or subtraction of 1s, 2s, 5s, and 10s	
Course Topic	Activities Title
1.PAR.3 - Patterns & Algebra	Number Line Order (50 +)

## Geometric & Spatial Reasoning

Compose shapes, analyze the attributes of shapes, and relate their parts to the whole.

1.GSR.4.1	
Identify common two-dimensional shapes and three-dimensional figures, sort and classify them by their attributes and build and draw shapes that possess defining attributes.	
Course Topic	Activities Title
1.GSR.4 -Shape & Space	Collect Simple Shapes
	Match the Solid 2

1.GSR.4.3	
Partition circles and rectangles into two and four equal shares	
Course Topic	Activities Title
1.GSR.4 -Shape & Space	Halves
	Is it Half?
	Halves and Quarters

## Numerical Reasoning

Use concrete models, the base ten structure, and properties of operations to add and subtract within 100.

1.NR.5.1	
Use a variety of strategies to solve applicable, mathematical addition and subtraction problems with one- and two-digit whole numbers.	
Course Topic	Activities Title
1.NR.5 - Add & subtract within 100	1 More, 2 Less
	Model Subtraction
	Adding to 2-digit numbers
	Complements to 10, 20, 50
	Complements to 50 and 100

<b>1.NR.5.2</b> Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	
<b>Course Topic</b>	<b>Activities Title</b>
1.NR.5 - Add & subtract within 100	Subtract Tens
	10 More, 10 Less

<b>1.NR.5.3</b> Add and subtract multiples of 10 within 100.	
<b>Course Topic</b>	<b>Activities Title</b>
1.NR.5 - Add & subtract within 100	Subtract Tens
	10 More, 10 Less

## Measurement & Data Reasoning

<b>Course Topic</b>	<b>Activities Title</b>
REVIEW 1.MDR.6 - Measure	Everyday Length
	Which Holds More?

Use appropriate tools to measure, order, and compare intervals of length and time, as well as denominations of money to solve real-life, mathematical problems and analyze graphical displays of data to answer relevant questions

<b>1.MDR.6.1</b> Estimate, measure, and record lengths of objects using non-standard units, and compare and order up to three objects using the recorded measurements. Describe the objects compared.	
<b>Course Topic</b>	<b>Activities Title</b>
1.MDR.6 - Measure	Compare Length
	Compare Length 1
	Measuring Length with Blocks

<b>1.MDR.6.2</b> Tell and write time in hours and half-hours using analog and digital clocks, and measure elapsed time to the hour on the hour using a predetermined number line.	
<b>Course Topic</b>	<b>Activities Title</b>
1.MDR.6 - Measure	Hour Times
	Half Hour Times

<b>1.MDR.6.3</b> Identify the value of quarters and compare the values of pennies, nickels, dimes, and quarters.	
<b>Course Topic</b>	<b>Activities Title</b>
1.MDR.6 - Measure	Everyday Money

**1.MDR.6.4**

Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to compare and order whole numbers.

Course Topic	Activities Title
1.MDR.6 - Measure	Picture Graphs: More or Fewer (USA)
	Picture Graphs: Who has the Goods?
	Comparing Volume
	Everyday Mass

# Grade 2

## Numerical Reasoning

Course Topic	Activities Title
2.NR.1 Number & Place Value	Making Numbers Count
	Making Big Numbers Count
	Counting Forwards
	Counting Backwards
	Going Down

Using the place value structure, explore the count sequences to represent, read, write, and compare numerical values to 1000 and describe basic place-value relationships and structures.

2.NR.1.1	
Explain the value of a three-digit number using hundreds, tens, and ones in a variety of ways.	
Course Topic	Activities Title
2.NR.1 - Number & Place Value	Place Value 1
	Place Value 2
	Place Value Partitioning
	Partition and Rename 1/Understanding Place Value 1 (CAN)

2.NR.1.2	
Count forward and backward by ones from any number within 1000. Count forward by fives from multiples of 5 within 1000. Count forward and backward by 10s and 100s from any number within 1000. Count forward by 25s from 0.	
Course Topic	Activities Title
2.NR.1 - Number & Place Value	Skip Counting with Coins
	Count by 2s, 5s and 10s

2.NR.1.3	
Represent, compare, and order whole numbers to 1000 with an emphasis on place value and equality. Use >, =, and < symbols to record the results of comparisons.	
Course Topic	Activities Title
2.NR.1 - Number & Place Value	Smallest and largest numbers
	Which is Smaller?
	Which is Bigger?
	Ascending Order
	Descending Order



Course Topic	Activities Title
REVIEW 2.NR.2 - Add & Subtract	Adding In Any Order
	Fact Families: Add and Subtract
	Balancing Act
	Balance Numbers to 10/Composing numbers to 10
	Balance Additions to 20/Composing additions to 20

**Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 1,000.**

2.NR.2.1	
Fluently add and subtract within 20 using a variety of mental, part-whole strategies.	
Course Topic	Activities Title
2.NR.2 - Add & Subtract	Balance Numbers to 20/Composing Numbers to 20
	All about Twenty
	Add 3 Numbers Using Bonds to 10
	Doubles and Halves to 20

2.NR.2.2	
Find 10 more or 10 less than a given three-digit number and find 100 more or 100 less than a given three-digit number.	
Course Topic	Activities Title
2.NR.2 - Add & Subtract	10 More, 10 Less
	Subtract Tens

2.NR.2.3	
Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies.	
Course Topic	Activities Title
2.NR.2 - Add & Subtract	Add and Subtract Problems
	Problems: Add and Subtract 1
	Adding to 2-digit numbers
	Add 3 Numbers: Bonds to Multiples of 10
	Columns that Add
	Add Three 1-Digit Numbers
	Subtract Numbers

2.NR.2.4	
Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	
Course Topic	Activities Title
2.NR.2 - Add & Subtract	Repartition to Subtract/Decompose numbers to subtract

**Work with equal groups to gain foundations for multiplication through real-life, mathematical problems.**

<b>2.NR.3.1</b>	
Determine whether a group (up to 20) has an odd or even number of objects. Write an equation to express an even number as a sum of two equal addends.	
Course Topic	Activities Title
2.NR.3 - Multiplication & Division	Groups of Two
	Odd or Even

<b>2.NR.3.2</b>	
Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	
Course Topic	Activities Title
2.NR.3 - Multiplication & Division	Share the Treasure
	Groups
	Multiplication Arrays

## **Patterning & Algebraic Reasoning**

Course Topic	Activities Title
REVIEW 2.PAR.4 - Patterns & Algebra	Number Line Order (50 +)
	Pattern Error
	Missing it!

**Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.**

<b>2.PAR.4.1</b>	
Identify, describe, and create a numerical pattern resulting from repeating an operation such as addition and subtraction.	
Course Topic	Activities Title
2.PAR.4 - Patterns & Algebra	Count by 2s, 5s and 10s

<b>2.PAR.4.2</b>	
Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction up to 20.	
Course Topic	Activities Title
2.PAR.4 - Patterns & Algebra	Count Forward Patterns
	Count Backward Patterns

## Measurement & Data Reasoning

Estimate and measure the lengths of objects and distance to solve problems found in real-life using standard units of measurement, including inches, feet, and yards and analyze graphical displays of data to answer relevant questions.

2.MDR.5.1	
Construct simple measuring instruments using unit models. Compare unit models to rulers.	
Course Topic	Activities Title
2.MDR.5 - Measurement	How Long Is That (Customary)?
	Comparing Length
	Ordering Lengths (cm)
	Ordering Mass (g)

2.MDR.5.2	
Estimate and measure the length of an object or distance to the nearest whole unit using appropriate units and standard measuring tools.	
Course Topic	Activities Title
2.MDR.5 - Measurement	How Long Is That (Customary)?
	Comparing Length
	Ordering Lengths (cm)
	Ordering Mass (g)

Course Topic	Activities Title
REVIEW 2.MDR.6 - Time & Money	Measuring Length with Blocks
	Hour Times
	Half Hour Times
	Everyday Money

Solve real-life problems involving time and money.

2.MDR.6.1	
Tell and write time from analog and digital clocks to the nearest five minutes, and estimate and measure elapsed time using a timeline, to the hour or half hour on the hour or half hour.	
Course Topic	Activities Title
2.MDR.6 - Time & Money	Five Minute Times

2.MDR.6.2	
Find the value of a group of coins and determine combinations of coins that equal a given amount that is less than one hundred cents, and solve problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately	
Course Topic	Activities Title
2.MDR.6 - Time & Money	Teacher directed

## Geometric & Spatial Reasoning

Course Topic	Activities Title
REVIEW 2.GSR.7 - Shape & Space	Halves
	Is it Half?

**Draw and partition shapes and other objects with specific attributes, and conduct observations of everyday items and structures to identify how shapes exist in the world.**

2.GSR.7.1	
Describe, compare and sort 2-D shapes including polygons, triangles, quadrilaterals, pentagons, hexagons, and 3-D shapes including rectangular prisms and cones, given a set of attributes.	
Course Topic	Activities Title
2.GSR.7 - Shape & Space	Match the Solid 1
	Collect the Shapes
	Select the Objects

2.GSR.7.2	
Identify at least one line of symmetry in everyday objects to describe each object as a whole.	
Course Topic	Activities Title
2.GSR.7 - Shape & Space	Symmetry

2.GSR.7.3	
Partition circles and rectangles into two, three, or four equal shares. Identify and describe equal-sized parts of the whole using fractional names ("halves," "thirds," "fourths", "half of," "third of," "quarter of," etc.).	
Course Topic	Activities Title
2.GSR.7 - Shape & Space	Halves and Quarters
	Shade fractions

2.GSR.7.4	
Recognize that equal shares of identical wholes may be different shapes within the same whole.	
Course Topic	Activities Title
2.GSR.7 - Shape & Space	Halves and Quarters
	Shade fractions



For more information about Mathletics,  
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