

# Georgia's K-12 Mathematics Standards Curriculum Map

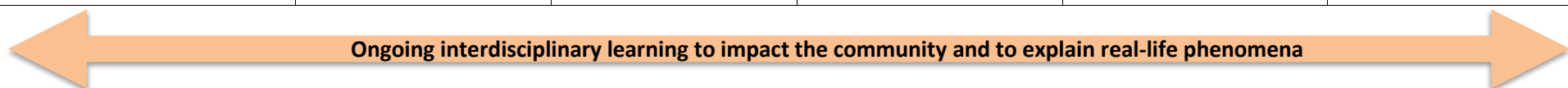
***Implementation beginning Fall 2023***

**GRADE 1**

# GRADE 1 MATHEMATICS CURRICULUM MAP

## Georgia's K-12 Mathematics Standards GRADE 1

Semester 1			Semester 2		
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Extending Number Sequence Understanding to Build, Compare and Interpret Numbers Within 120 <a href="#">Interdisciplinary Connection</a>	Building and Explaining the Relationship Between Addition and Subtraction <a href="#">Interdisciplinary Connection</a>	Sorting, Sifting, Shifting Shapes and Patterns <a href="#">Interdisciplinary Connection</a>	Exploring Meaningful Measurements <a href="#">Interdisciplinary Connection</a>	Problem Solving to Answer Real-Life Questions <a href="#">Interdisciplinary Connection</a>	Culminating Capstone Unit
<b>6 – 7 weeks</b>	<b>6 – 7 weeks</b>	<b>3 – 4 weeks</b>	<b>6 – 7 weeks</b>	<b>6 – 7 weeks</b>	<b>3 – 4 weeks</b>
1.NR.1 1. NR.2 1.MDR.6 1.MP.1-8	1. NR.2 1.MDR.6 1.MP.1-8	1.PAR.3 1.GSR.4 1.MDR.6 1.MP.1-8	1.MDR.6 1.MP.1-8	1.NR.1 1.NR.2 1.NR.5 1.MDR.6 1.MP.1-8	ALL STANDARDS  1.MP.1-8



The concepts in each unit are presented based on a logical, mathematical progression. Each unique unit in sequence builds upon the previous unit.

The [Framework for Statistical Reasoning](#), [Mathematical Modeling Framework](#), and the [K-12 Mathematical Practices](#) should be taught throughout the units.

**Mathematical Practices (1.MP.1- 8) 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.**

**Key for Course Standards:** MP: Mathematical Practices, NR: Numerical Reasoning, PAR: Patterning & Algebraic Reasoning, GSR: Geometric & Spatial Reasoning, MDR: Measurement & Data Reasoning

Georgia Department of Education

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# GRADE 1



## Year-At-A-Glance

### Semester 1

Pacing Suggestion	Unit Description	Content Standards	Learning Objectives
6 - 7 weeks	<p><b>Unit 1: Extending Number Sequence Understanding to Build, Compare and Interpret Numbers Within 120</b></p> <p><i>In this introductory unit, students will expand their number concept developed previously established in kindergarten and begin to develop a deeper understanding of counting and place value. They will read, write, and concretely represent numbers as they count numbers forward and backward starting with any number within 120. In tandem with developing an understanding of counting and place value, students will investigate real-life situations via inquiry. They will ask questions for investigation and answer them based on gathered information, observations, and appropriate graphical displays to compare and order the whole numbers.</i></p>	1.NR.1 1.NR.2 1.MDR.6  1.MP.1-8	1.NR.1.1 1.NR.1.2 1.NR.1.3 1.NR.2.1 (within 10) 1.NR.2.5 (within 10) 1.MDR.6.1 1.MDR.6.4
6 - 7 weeks	<p><b>Unit 2: Building and Explaining the Relationship Between Addition and Subtraction</b></p> <p><i>Within this unit, students will consider 10 as a useful organizer, begin to see numbers in relation to 10, and see large numbers as groups of 10 and some more. Students will use number relationships to develop addition and subtraction strategies as they engage in real world problem solving. Students will continue to investigate real-life situations via inquiry. They will ask questions for investigation and answer them based on gathered information, observations, and appropriate graphical displays to compare and the whole numbers.</i></p>	1.NR.2 1.MDR.6  1.MP.1-8	1.NR.2.1 1.NR.2.2 1.NR.2.3 1.NR.2.4 1.NR.2.5  1.NR.2.7 1.NR.2.6 1.MDR.6.1 1.MDR.6.4
3 - 4 weeks	<p><b>Unit 3: Sorting, Sifting, Shifting Shapes and Patterns</b></p> <p><i>As a result of students' engagement within this unit, students will identify, describe, build, and compare shapes based on attributes. They will also partition circles and rectangles into two (halves) and four (fourths/quarters) equal parts. Students will also identify and describe real-life patterns based on the attributes of the pattern. Students will explore repeating patterns, inclusive of number strings, shapes, and operations, define and describe attributes, as well as create repeating, shrinking, and growing patterns based on attribute, or repeated addition (by 1s, 2s, 5s and 10s).</i></p>	1.PAR.3 1.GSR.4 1.MDR.6  1.MP.1-8	1.PAR.3.1 1.PAR.3.1 1.GSR.4.1 1.GSR.4.2 1.GSR.4.3  1.MDR.6.1 1.MDR.6.4

Mathematical Practices (1.MP.1- 8) 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.

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## Year-At-A-Glance

### Semester 2

Pacing Suggestion	Unit Description	Content Standards	Learning Objectives	
6 - 7 weeks	<p><b>Unit 4: Meaningful Measurements</b>  <i>Within this unit, students will use measurement tools to estimate, measure, describe and compare the measurement of objects with standard and non-standard units with appropriate vocabulary. Students will also use those tools to solve contextual problems (real-life) involving length, time and money.</i></p>	<p>1.MDR.6                      1.MP.1-8</p>	<p>1.MDR.6.1                      1.MDR.6.2                      1.MDR.6.3                      1.MDR.6.4</p>	
6 - 7 weeks	<p><b>Unit 5: Problem Solving to Answer Real-Life Questions</b>  <i>As a result of students' engagement with this unit, students will develop and use strategies to solve contextual problems (real-life) within 100. Students will develop mental math strategies as they use and connect place value understanding, single digit addition/subtraction strategies, and concrete tools to add and subtract within 100. Students will find ten more or less than a number, count by tens to add and subtract multiples of 10 within 100, and use mental math strategies as well as concrete models and to solve and justify solutions to real-life problems.</i></p>	<p>1.NR.1                      (up to 120)                      1.NR.2                      1.NR.5                      1.MDR.6                      1.MP.1-8</p>	<p>1.NR.1.1                      (up to 120)                      1.NR.1.2                      (up to 120)                      1.NR.1.3                      (up to 120)                      1.NR.2.1                      1.NR.2.7                      1.NR.2.2                      1.NR.5.2</p>	<p>1.NR.2.3                      1.NR.5.3                      1.NR.2.4                      1.MDR.6.1                      1.NR.2.5                      1.MDR.6.4                      1.NR.2.6</p>
3 - 4 weeks	<p><b>Unit 6: Culminating Capstone Unit</b>  <b>Using Mathematics to Answer Questions in My World (applying concepts in real-life contexts through a culminating interdisciplinary unit)</b>  <i>The capstone unit applies content that has already been learned in previous interdisciplinary PBLs and units throughout the school year. The capstone unit is an interdisciplinary unit that allows students to create a presentation, report, or demonstration that could include their models used to answer an overarching driving question. (e.g., Students can present their solution(s), findings, project, or answer to the driving question to a larger audience during the culminating capstone unit.)</i></p>	<p>ALL CONTENT STANDARDS                      1.MP.1-8</p>	<p>ALL LEARNING OBJECTIVES</p>	

Mathematical Practices (1.MP.1- 8) 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.

# GRADE 1

## Semester 1

**Unit 1: Extending Number Sequence Understanding to Build, Compare and Interpret Numbers Within 120  
(6 - 7 weeks)**

**Big Ideas: Numerical Reasoning and Measurement & Data Reasoning**

***Standards Addressed in this Unit:***

***1.NR.1: Extend the count sequence to 120. Read, write, and represent numerical values to 120 and compare numerical values to 100.***

***1.NR.2: Explain the relationship between addition and subtraction and apply the properties of operations to solve real-life addition and subtraction problems within 20.***

***1.MDR.6: 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.***

***Suggested Clusters of Concepts (Learning Objectives)***

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.

1.NR.1.2 Explain that the two digits of a 2-digit number represent the amounts of tens and ones.

1.NR.1.3 Compare and order whole numbers up to 100 using concrete models, drawings, and the symbols  $>$ ,  $=$ , and  $<$ .

1.NR.2.1 Use a variety of strategies to solve addition and subtraction problems within 20.

1.NR.2.5 Use the meaning of the equal sign to determine whether equations involving addition and subtraction are true or false.

1.MDR.6.1 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.

1.MDR.6.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to compare and order whole numbers.

**Mathematical Practices (1.MP.1- 8) 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.**

# GRADE 1

## Unit 2: Building and Explaining the Relationship Between Addition and Subtraction (6 - 7 weeks)

### Big Ideas: Numerical Reasoning and Measurement & Data Reasoning

#### ***Standards Addressed in this Unit:***

***1.NR.2: Explain the relationship between addition and subtraction and apply the properties of operations to solve real-life addition and subtraction problems within 20.***

***1.MDR.6: 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.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

1.NR.2.1 Use a variety of strategies to solve addition and subtraction problems within 20.

1.NR.2.2 Use pictures, drawings, and equations to develop strategies for addition and subtraction within 20 by exploring strings of related problems.

1.NR.2.3 Recognize the inverse relationship between subtraction and addition within 20 and use this inverse relationship to solve authentic problems.

1.NR.2.4 Fluently add and subtract within 10 using a variety of strategies.

1.NR.2.5 Use the meaning of the equal sign to determine whether equations involving addition and subtraction are true or false.

1.NR.2.6 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.

1.NR.2.7 Apply properties of operations as strategies to solve addition and subtraction problem situations within 20.

1.MDR.6.1 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.

1.MDR.6.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to compare and order whole numbers.

**Mathematical Practices (1.MP.1- 8) 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.**

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## Unit 3: Sorting, Sifting, Shifting Shapes and Patterns (3 - 4 weeks)

### Big Ideas: Patterning & Algebraic, Geometric & Spatial, and Measurement & Data Reasoning

#### ***Standards Addressed in this Unit:***

***1.PAR.3: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns found in real-life situations.***

***1.GSR.4: Compose shapes, analyze the attributes of shapes, and relate their parts to the whole.***

***1.MDR.6: 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.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

1.PAR.3.1 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.

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.

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.

1.GSR.4.2 Compose two-dimensional shapes (rectangles, squares, triangles, half-circles, and quarter-circles) and three-dimensional figures (cubes, rectangular prisms, cones, and cylinders) to create a shape formed of two or more common shapes and compose new shapes from the composite shape.

1.GSR.4.3 Partition circles and rectangles into two and four equal shares.

1.MDR.6.1 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.

1.MDR.6.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to compare and order whole numbers.

**Mathematical Practices (1.MP.1- 8) 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.**



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## Semester 2

### Unit 4: Meaningful Measurements (6 - 7 weeks)

#### Big Ideas: Measurement & Data Reasoning

#### ***Standard Addressed in this Unit:***

***1.MDR.6: 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.***

#### ***Suggested Cluster of Concepts (Learning Objectives)***

- 1.MDR.6.1 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.
- 1.MDR.6.2 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.
- 1.MDR.6.3 Identify the value of quarters and compare the values of pennies, nickels, dimes, and quarters.
- 1.MDR.6.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to compare and order whole numbers.

**Mathematical Practices (1.MP.1- 8) 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.**



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## Unit 5: Problem Solving to Answer Real-Life Questions (6 - 7 weeks)

### Big Ideas: Numerical Reasoning and Measurement & Data Reasoning

#### ***Standards Addressed in this Unit:***

***1.NR.1: Extend the count sequence to 120. Read, write, and represent numerical values to 120 and compare numerical values to 100.***

***1.NR.2: 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.5: Use concrete models, the base ten structure, and properties of operations to add and subtract within 100.***

***1.MDR.6: 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.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

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.

1.NR.1.2 Explain that the two digits of a 2-digit number represent the amounts of tens and ones.

1.NR.1.3 Compare and order whole numbers up to 100 using concrete models, drawings, and the symbols  $>$ ,  $=$ , and  $<$ .

1.NR.2.1 Use a variety of strategies to solve addition and subtraction problems within 20.

1.NR.2.2 Use pictures, drawings, and equations to develop strategies for addition and subtraction within 20 by exploring strings of related problems.

1.NR.2.3 Recognize the inverse relationship between subtraction and addition within 20 and use this inverse relationship to solve authentic problems.

1.NR.2.4 Fluently add and subtract within 10 using a variety of strategies.

1.NR.2.5 Use the meaning of the equal sign to determine whether equations involving addition and subtraction are true or false.

1.NR.2.6 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.

1.NR.2.7 Apply properties of operations as strategies to solve addition and subtraction problem situations within 20.

1.NR.5.1 Use a variety of strategies to solve applicable, mathematical addition and subtraction problems with one- and two-digit whole numbers.

1.NR.5.2 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

1.NR.5.3 Add and subtract multiples of 10 within 100.

1.MDR.6.1 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.

1.MDR.6.2 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.

1.MDR.6.3 Identify the value of quarters and compare the values of pennies, nickels, dimes, and quarters.

1.MDR.6.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to compare and order whole numbers.

**Mathematical Practices (1.MP.1- 8) 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.**

## **Unit 6: Culminating Capstone Unit (3 - 4 weeks)**

### **Using Mathematics to Answer Questions in My World**

**(applying concepts in real-life contexts through a culminating interdisciplinary unit)**

#### ***ALL Standards Addressed in this Unit***

***The capstone unit applies content that has already been learned in previous interdisciplinary PBLs and units throughout the school year. The capstone unit is an interdisciplinary unit that allows students to create a presentation, report, or demonstration that could include their models used to answer an overarching driving question. (e.g., Students can present their solution(s), findings, project, or answer to the driving question to a larger audience during the culminating capstone unit.)***

**Mathematical Practices (1.MP.1- 8) 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.**