



Marietta City Schools
District Unit Planner

Unit Name	Unit 2: Building Fluency with Addition and Subtraction	Unit duration	4-5 weeks
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[GA K-12 Standards](#)

In this unit, students will solve addition and subtraction problems within 100 using strategies based on place value, including decomposing a ten, the properties of operations, relationship between addition and subtraction, and part-whole strategies. Students will solve real-life addition and subtraction problems including problems involving charts and graphs. Students will continue to develop their understanding of the value of numbers to 1,000 by representing, ordering and comparing. Students will demonstrate an understanding of counting sequences. Students will continue to develop fluency using mental math and strategies.

2.NR.1 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.
- **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.
- **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.

2.NR.2: 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. **Teacher Note: 2nd grade should only be adding and subtracting tens and hundreds to 3 digit numbers and not any 3 digit with any 3 digit****

- **2.NR.2.1** Fluently add and subtract within 20 using a variety of mental, part-whole strategies.
- **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.
- **2.NR.2.3** Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies. **(within 100 for this unit)**
- **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.

2.PAR.4: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.

- **2.PAR.4.1** Identify, describe, and create a numerical pattern resulting from repeating an operation such as addition and subtraction.

2.MDR.5: 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.

- **2.MDR.5.4** Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

2.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.

- **2.MP.1** Make sense of problems and persevere in solving them.
- **2.MP.2** Reason abstractly and quantitatively.
- **2.MP.3** Construct viable arguments and critique the reasoning of others.
- **2.MP.4** Model with mathematics.
- **2.MP.5** Use appropriate tools strategically.
- **2.MP.6** Attend to precision.
- **2.MP.7** Look for and make use of structure.
- **2.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

- I can fluently add and subtract within 20 using a variety of mental and part-whole strategies.
- I can find 10 more or 10 less than a given three-digit number
- I can find 100 more or 100 less than a given three-digit number.
- I can count forward and backward by ones, multiples of 5, 10s and 100s from any number within 1000.
- I can identify, describe, and create a numerical pattern
- I can represent whole-number sums and differences on a number line diagram
- I can persevere through math problems using various mathematical strategies

Tier II Vocabulary Words- High Frequency Multiple Meaning	Tier III Vocabulary Words- Subject/ Content Related Words
pattern, repeating, differences, describe, count, forward, backwards, more, less, multiples, identify, describe, create	whole numbers, number line, sums, differences, digit, numerical, digit K-12 Mathematics Glossary

Assessments

Formative Assessment(s):

- MCS K-5 Activity & Assessment Collection
- Unit 2 Assessment

*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
<p>2.NR.1 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.</p>	<p style="text-align: center;"><u>GA DOE Learning Plans</u></p> <p><u>Counting Collections (2-3 Days)</u> <i>In this learning plan, students will engage in counting collections, a structured opportunity for children to count a collection of objects. After students count the objects in their collection, they record how they counted.</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Materials <p><u>The Importance of Zero (2-3 Days)</u> <i>In this learning plan, students evaluate the importance of zero in building numbers in a base ten system. Students will represent 3-digit numbers in multiple ways.</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Materials 	<p style="text-align: center;"><u>MCS Curriculum Resources</u></p> <p><u>SAVVAS enVision Topic 9: Numbers to 1,000</u></p> <ul style="list-style-type: none"> ● Lesson 9-1: Understand Hundreds ● Lesson 9-2: Models and 3-Digit Numbers ● Lesson 9-3: Name Place Values ● Lesson 9-4: Read and Write 3-Digit Numbers ● Lesson 9-5: Different Ways to Name the Same Number 	<p>Close to 100 Recalling the number of 10s within decades that add to 100.</p> <p>Close to 1000 Recall the number of tens and hundreds in 100s and 1,000s.</p> <p>Number Line Flips Number order: What comes before and after a given number in the range 0 – 100.</p>
<p>2.NR.2 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.</p>	<ul style="list-style-type: none"> ● <p><u>Incredible Equations (1-2 Days)</u> <i>In this learning plan, students will build fluency within 20 by using addition and/or subtraction to solve for the unknown in an equation.</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Materials <p><u>Doubles and Halves (2-3 Days)</u> <i>In this learning plan, students will build fluency within 20 by exploring doubles, near doubles, and halves.</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Materials <p><u>Planning a Pizza Party (2-3 Days)</u> <i>In this learning plan, students create a statistical investigative question that can be answered by gathering, representing, and interpreting data. Students will analyze the information by asking and answering questions about the data and creating a picture graph and bar graph. Students will interpret categorical</i></p>	<p><u>MIP Module 6: Understanding Multi Digit Addition</u> <i>The key ideas focused on in this module include adding two digit numbers using an understanding of place value and understanding and explaining varied strategies for adding multi digit numbers.</i></p> <ul style="list-style-type: none"> ● Modeling 2 Digit Plus 1 Digit Addition with Base-Ten Blocks p. 139-140 ● Modeling 2 Digit Plus 2 Digit Addition with Base-Ten p. 140-141 ● Adding with Partial Sums p. 147-150 ● Adding 2 Digits on a Number Line p. 151-153 ● Using Compensation to Add 2 Digit Numbers p. 152-153 <p><u>MIP Module 7: Understanding Multi Digit Subtraction</u> <i>The key ideas focused on in this module include using place value strategies to subtract 2 digit numbers using different methods and to understand that regrouping is necessary and using place value to regroup, or rename numbers.</i></p> <ul style="list-style-type: none"> ● Subtracting within 100 Using Base-Ten Models p. 170-172 	<p>Visualizing/Imaging Many Hands Solving subtraction problems from 20 by counting all the objects in their head.</p> <p>Adding and Subtracting Tens Solving addition and subtraction problems using groups of tens</p> <p>Peek-a-Boo Adding Mentally solve addition problems to 100 by counting on.</p> <p>Change Unknown Mentally solve addition problems to 100 by counting on.</p> <p>On and Off the Train Solve addition and subtraction</p>

	<p><i>data to answer the statistical investigative question created.</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Materials <p><u>Represent & Solve Problems (2-3 Days)</u> <i>In this learning plan, students will use a variety of representations to solve addition and subtraction problems with unknowns in all positions.</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Materials <p><u>Composing a New Ten (2-3 Days)</u> <i>In this learning plan, students will explore a variety of activities that focus on composing a new ten when adding within 100.</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Materials <p><u>Building and Busting Towers of 10 (1-2 Days)</u> <i>In this learning plan, students will develop addition and subtraction skills as they work within 100 to build and break down towers of 10. The games in this learning plan focus on building conceptual understandings of addition and subtraction across tens.</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Materials <p><u>Counting Mice (1-2 Days)</u> <i>In this learning plan, students will compose and decompose numbers in different ways, use mental math to add within 100, and solve addition and subtraction word problems with unknowns in different positions.</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Materials <p><u>Got Milk? (1-2 Days)</u> <i>In this learning plan, students will participate in a 3-Act Math Task and use a variety of strategies to solve for the unknown in addition and subtraction problems.</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Materials 	<ul style="list-style-type: none"> • Subtracting Using Expanded Form p. 174-175 • Decomposing to Subtract p. 175-176 • Subtracting Using an Open Number Line p. 179-180 • Subtracting Using Compensation p. 181-182 <p><u>SAVVAS enVision Topic 1: Fluently Add and Subtract Within 20</u></p> <ul style="list-style-type: none"> • Lesson 1-1: Addition Fact Strategies • Lesson 1-2: Doubles and Near Doubles • Lesson 1-3: Make a 10 to Add • Lesson 1-4: Addition Fact Patterns • Lesson 1-5: Count On and Count Back to Subtract • Lesson 1-6: Think Addition to Subtract • Lesson 1-7: Make a 10 to Subtract • Lesson 1-8: Practice Addition and Subtraction Facts • Lesson 1-9: Solve Addition and Subtraction Word Problems <p><u>SAVVAS enVision Topic 3: Add Within 100 Using Strategies</u></p> <ul style="list-style-type: none"> • Lesson 3-2: Add Tens and ones on an Open Number Line • Lesson 3-3: Break Apart Numbers to Add • Lesson 3-4: Add Using Compensation • Lesson 3-5: Practice Adding Using Strategies <p><u>SAVVAS enVision Topic 5: Subtract within 100 Using Strategies</u></p> <ul style="list-style-type: none"> • Lesson 5-2: Count Back and Subtract on an Open Number Line • Lesson 5-3: Add Up to Subtract Using an Open Number Line • Lesson 5-4: Break Apart Numbers to Subtract • Lesson 5-5: Subtract Using Compensation 	<p>problems by using place value partitioning.</p> <p>Subtracting Tens and Ones Solve addition and subtraction problems by using place value partitioning.</p> <p>Jumping the Number Line Solve addition and subtraction problems by compensating with tidy numbers.</p>
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<p>2.PAR.4: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.</p>	<p><u>Different Paths/Same Destination (2-3 Days)</u> <i>In this learning plan, students will solve an authentic problem to explore addition/subtraction relationships within 10.</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Materials 	<p><u>SAVVAS enVision Topic 3: Add Within 100 Using Strategies</u></p> <ul style="list-style-type: none"> • Lesson 3-1: Add Tens and Ones on a Hundred Chart <p><u>SAVVAS enVision Topic 5: Subtract within 100 Using Strategies</u></p> <ul style="list-style-type: none"> • Lesson 5-1: Subtract Tens and Ones on a Hundred Chart 	
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Content Resources

<p>MCS Links:</p> <ul style="list-style-type: none"> • MCS 2nd Grade Math Curriculum Map • MCS Math Instructional Framework <p>GA DOE Links: <i>Access all GADOE Curriculum Resources at the following site: https://inspire.gadoe.org.</i></p>	<p>Additional Resources:</p> <ul style="list-style-type: none"> • Hundreds chart • Base ten blocks • Number Lines
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