



Marietta City Schools
District Unit Planner

Kindergarten

Unit Name

Unit 7: Measurement & Data Reasoning: Using Numbers and Data to Make Sense of My World

Unit duration (Days)

4 - 5 weeks

[GA K-12 Standards](#)

In this unit, students will further investigate place value and solve addition and subtraction problems in the real-world. They will explain patterns they see and have additional experiences in creating, extending, and describing patterns with numbers and shapes. Students will describe patterns related to the passage of time in their lives (yesterday, today, and tomorrow). Based on their interests and curiosity, they will create investigative statistical questions, collect data, analyze the data, and explain the data to answer their questions. (See Framework for Statistical Reasoning.)

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. e numbers from 11 to 19 by composing (putting together) and decomposing (breaking apart) the numbers into ten ones and some more ones.

K.NR.5 Explain the concepts of addition, subtraction, and equality and use these concepts to solve real-life problems within 10.

- **K.NR.5.1** Compose (put together) and decompose (break apart) numbers up to 10 using objects and drawings.
- **3K.NR.5.2** Represent addition and subtraction within 10 from a given authentic situation using a variety of representations and strategies.
- **K.NR.5.3** Use a variety of strategies to solve addition and subtraction problems within 10.
- **K.NR.5.4** Fluently add and subtract within 5 using a variety of strategies to solve practical, mathematical problems.

K.PAR.6 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.
- **K.PAR.6.2** Describe patterns involving the passage of time using words and phrases related to actual events.

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.

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.

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 compose (put together) and decompose (break apart) numbers up to 10 using objects and drawings.
- I can use strategies to solve addition and subtraction problems within 10.
- I can represent addition and subtraction within 10 from a situation using a variety of representations and strategies.
- I can describe numbers from 11 to 19 as ten and some more.
- I can use drawings and equations to make the numbers 11, 12, and 13.
- I can use different numbers and objects to get equal amounts.
- I can compose numbers in different ways.
- I can model with math.
- I can extend and describe repeating patterns.
- I can represent and solve problem situations using objects, pictures, words and numbers.
- I can describe patterns involving the passage of time using words and phrases related to actual events.
- I can ask questions and answer them based on gathered information and observations to solve problems relevant to everyday life.

Tier II Vocabulary Words- High Frequency Multiple Meaning

add – put, together, living, chunk, most, common, compare, non-living, compose, pattern, core, quantity, data, represent, difference, separate, decompose, set, explain, sort, equal, strategy, extend, interpret

Tier III Vocabulary Words- Subject/ Content Related Words

Sum, subtract, iteration, analyze, statistical question, investigative question

Assessments

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| <ul style="list-style-type: none"> ● GADOE Diagnostic Assessments (linked in Learning Plans below) ● MIP Formative Assessment, p. 65 (Decompose) ● MIP Formative Assessment, p. 67 (Decompose) ● MIP Formative Assessment, p. 157 (Addition) ● MIP Formative Assessment, p. 162-163 (Addition) | <ul style="list-style-type: none"> ● MIP Formative Assessment, p. 188 (Subtraction) ● MIP Formative Assessment, p. 191 (Subtraction) ● MIP Formative Assessment, p. 199 (Decomposing) ● MIP Formative Assessment, p. 212 (Fluency) ● MIP Formative Assessment, p. 218 (Fluency) |
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- MIP Formative Assessment, p. 167 (Addition)
- MIP Formative Assessment, p. 176 (Addition)

- MCS Mini K.NR.5
- MCS Unit 7 Common Formative 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><u>K.NR.5</u> Explain the concepts of addition, subtraction, and equality and use these concepts to solve real-life problems within 10.</p>	<p style="text-align: center;"><u>GA DOE Learning Plans</u></p> <p><u>Practicing Using Addition and Subtraction</u> <i>In this learning plan, students will explore the operations of addition and subtraction and use addition and subtraction to solve problems within 10 from real-life where the result or total is unknown. They will represent the situations in various ways using objects, fingers, drawings, expressions or equations. Students will solve problems they create by generating questions and gathering information. Students will use a variety of strategies to solve addition and subtraction problems within 10. (timeframe 4 – 5 days)</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Reproducibles <p><u>Applying Addition and Subtraction in My World</u> <i>In this learning plan, students will explore the operations of addition and subtraction and use addition and subtraction to solve problems within 10 from real-life where the result. They will represent the situations in various ways using objects, fingers, drawings, expressions or equations. Students will solve problems they create by generating questions and gathering information. Students will use a variety of strategies to solve addition and subtraction problems within 10. (timeframe 6-7 days)</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Reproducibles 	<p style="text-align: center;"><u>MCS Curriculum Resources</u></p> <p><u>MIP Module 6: Decomposing Numbers</u> <i>The key ideas focused on in this module include: decomposing numbers to 10 using manipulatives, pictures, diagrams.</i></p> <ul style="list-style-type: none"> ● Breaking the Chain, p. 121 ● Chips, Chips, What Color Chips?, p.122 ● Showing Parts Through Pictures, p.124 ● Modeling Through Part-Part-Whole Mats, p.126 ● Introducing Number Bonds, p.127 ● Quack and Count, p. 131 ● Number Bracelets, p.132 ● Capture and Count, p.133 ● Shake a Bag, p.134 ● Math Rack, p.135 ● Non-Traditional Ten Frames, p.136 ● Domino Sort, p.137 ● Using Ten Frames to Make Ten, p.138 ● Ways to Make 10, p.139 ● Exploring 10 with Bead Counters, p.140 ● Additional Ideas for Support & Practice, p.142-148 <p><u>Savvas enVision Topic 6: Understanding Addition</u> <i>Students develop an understanding of addition by representing operations in different ways.</i></p> <ul style="list-style-type: none"> ● Lesson 6-1: Explore Addition ● Lesson 6-2: Represent Addition as Adding to ● Lesson 6-3: Represent Addition as Putting Together ● Lesson 6-4: Represent and Explain Addition within 	<p><u>Finger Patterns to Ten:</u> Instantly recognize patterns to 10</p> <p><u>Bowl a Fact:</u> Recall facts within 5, and doubles to 10</p> <p><u>Adding and Subtracting with Counters:</u> Recall facts up to 10</p> <p><u>Addition Flash Cards:</u> Recall facts up to 10</p>

	<p>Using Math in Everyday Life *Also includes K.MDR.7 Learning Plan Description: In this learning plan, students will explore how statistical reasoning, patterns, and addition and subtraction can be used to learn about living and nonliving things and describe them using words related to time. (timeline 3-4 days)</p> <ul style="list-style-type: none"> • Teacher Guidance • Student Reproducibles <p>Balancing Numbers 3-Act Task *Also includes K.NR.4 and K.GSR.8 <i>In this learning plan, students will explore using different combinations of numbers to represent the same quantity. They will use their understanding of pattern blocks to find different combinations that are equal. (timeline 1-2 Days)</i></p> <ul style="list-style-type: none"> • Teacher Guidance • Student Reproducibles 	<p>Equations</p> <ul style="list-style-type: none"> • Lesson 6-5: Solve Addition Word Problems: Put Together • Lesson 6-6: Use Patterns to Develop Fluency in Addition <p>Savvas enVision Topic 7: Understanding Subtraction Students develop an understanding of subtraction by representing the operation in different ways.</p> <ul style="list-style-type: none"> • Lesson 7-1: Explore Subtraction • Lesson 7-2: Represent Subtraction as Taking Apart • Lesson 7-3: Represent Subtraction as Taking From • Lesson 7-4: Represent and Explain Subtraction with Equations • Lesson 7-5: Solve Subtraction Word Problems: Taking From and Apart <p>Savvas enVision Topic 8: More Addition and Subtraction Students extend their understanding of addition and subtraction by representing operations in different ways.</p> <ul style="list-style-type: none"> • Lesson 8-1: Decompose 5 to Solve Problems • Lesson 8-2: Related Facts • Lesson 8-3: Problem Solving: Reasoning • Lesson 8-4: Fluently Add and Subtract to 5 • Lesson 8-5: Decompose 6 and 7 to Solve Problems • Lesson 8-6: Decompose 8 and 9 to Solve Problems • Lesson 8-7: Ways to Make 10 • Lesson 8-8: Decompose 10 to Solve Problems • Lesson 8-9: Find the Missing Part of 10 • Lesson 8-10: Continue to Find the Missing Part of 10 	
<p>K.NR.3: Use place value understanding to compose and decompose numbers from 11–19.</p>	<p>SAVVAS enVison Topic 10: Compose and Decompose Numbers 11-19 <i>Students compose and decompose numbers from 11-20 into tens and some further ones to build a foundation for understanding place value.</i></p> <ul style="list-style-type: none"> • 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 	<p>Teen Numbers: Describe numbers from 11 to 19 as ten and some more.</p> <p>Teen Numbers Ten Frames: Describe numbers from 11 to 19 as ten and some more.</p>	

	<ul style="list-style-type: none"> ● Lesson 10-5: Find Parts of 14, 15, 16 ● Lesson 10-6: Find Parts of 17, 18, 19 ● Lesson 10-7: Look for and use structure ● <p><u>MIP Module 3: Counting and Cardinality and Place Value</u> <i>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.</i></p> <ul style="list-style-type: none"> ● 10 and Some More on a Ten Frame, p. 60 ● May I Have Some More, p. 63 ● Double Ten Frames, p. 64 ● Towers of Ten and Some More, p. 68 ● 10 and Some More on Double Ten Frames, p. 74 ● 10 and Some More Links, p.75 ● Making and Drawing Trains, p. 76 ● Musical Math, p. 78 		
<p><u>K.PAR.6 :</u> Explain, extend, and create repeating patterns with a repetition, not exceeding 4 and describe patterns involving the passage of time.</p>	<p><u>Patterns in My World</u> <i>*Also includes K.MDR.7</i> <i>In this learning plan, students will further investigate patterns they see and have additional experiences in creating, extending, and describing patterns with numbers, shapes and objects in their world. Students will have more experiences with patterns related to the passage of time in their lives (yesterday, today, and tomorrow). Based on their interests and curiosity, they will create investigative statistical questions, collect data, analyze the data, and explain the data to answer their questions. (timeframe 4-5 days)</i></p> <ul style="list-style-type: none"> ● Teacher Guidance ● Student Reproducibles 	<p><u>Savvas enVision Topic 6: Understanding Addition</u> <i>Students develop an understanding of addition by representing operations in different ways.</i></p> <ul style="list-style-type: none"> ● Lesson 6-7: Use Patterns to Develop Fluency in Addition <p><u>Savvas enVision Topic 7: Understanding Subtraction</u> <i>Students develop an understanding of subtraction by representing the operation in different ways.</i></p> <ul style="list-style-type: none"> ● Lesson 7-6: Use Patterns to Develop Fluency in Subtraction 	<p><u>Ten in Bed:</u> Extending and describe repeating patterns</p> <p><u>Mary, Mary Quite Contrary:</u> Extending and describe repeating patterns</p>
<p><u>K.MDR.7</u> Observe, describe, and compare the physical and measurable attributes of objects.</p>	<p>This standard is taught in the lessons <i>Using Math in Everyday Life</i> and <i>Patterns in My World</i> (both are listed above).</p>	<p><u>Savvas enVision Topic 14: Describe and Compare Measurable Attributes</u> <i>Students are introduced to the measurable attributes of length, height, capacity, and weight. They describe and compare objects by these attributes.</i></p> <ul style="list-style-type: none"> ● Lesson 14-1: 	<p><u>Asking About Shoes:</u> Conduct investigations using the statistical inquiry cycle</p>

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: [GaDOE Inspire](#).

Additional Resources:

- Number Corner or Calendar Time
- Number Talks
- Estimation Activities/[Estimation 180](#)
- [Which One Doesn't Belong?](#)
- [Same or Different?](#)
- [Splat!](#)
- Ten Frames
- Number Cards, 1-20
- Blank Double Ten Frame