



Marietta City Schools  
District Unit Planner

*Fifth Grade*

**Unit Name**

*Unit 6: Extending Place Value and Working with Decimals to Solve Problems*

**Unit duration (Days)**

*4-5 Weeks*

[GA K-12 Standards](#)

*In this unit, students extend their understanding of the place value of numbers to include decimals through the thousandths place. Then, students use their understanding of place value to locate, compare, and order decimals to the thousandths place. Students will use place-value reasoning to round decimals to the tenths and hundredths places. Lastly, students will extend their understanding of whole number operations work to add and subtract decimals utilizing familiar representations, strategies based on place value and properties of operations.*

**5.NR.4:** Read, write, and compare decimal numbers to the thousandths place, and round and perform operations with decimal numbers to the hundredths place to solve real-life, mathematical problems.

- 5.NR.4.1 Read and write decimal numbers to the thousandths place using base-ten numerals written in standard form and expanded form.
- 5.NR.4.2 Represent, compare, and order decimal numbers to the thousandths place based on the meanings of the digits in each place, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.
- 5.NR.4.3 Use place value understanding to round decimal numbers to the hundredths place.
- 5.NR.4.4 Solve problems involving addition and subtraction of decimal numbers to the hundredths place using a variety of strategies

**5.MDR.7:** Solve problems involving customary measurements, metric measurements, and time and analyze graphical displays of data to answer relevant questions.

- 5.MDR.7.2 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.  
\*In Unit 6, students will focus on problem-solving to analyze data to answer relevant questions, not specifically involving customary measurements, metric measurements, and time.

**5.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.)*

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

- **5.MP.7** Look for and make use of structure.
- **5.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 MP's 1, 3 and 6 should support the learning in every lesson.

**Essential Questions/ I Can Statements**

- (5.NR.4.1) I can read and write decimal numbers to the thousandths place.
- (5.NR.4.1) I can write decimals to the thousandths place using standard and expanded form.
- (5.NR.4.2) I can use  $>$ ,  $<$ , and  $=$  symbols to compare and order decimal numbers to the thousandths.
- (5.NR.4.3) I can round decimals to the hundredths place.
- (5.NR.4.4) I can add and subtract decimals to the hundredths place.
- (5.MDR.7.2) I can analyze graphs involving decimals and answer questions about them.

Tier II Vocabulary Words- High Frequency Multiple Meaning	Tier III Vocabulary Words- Subject/ Content Related Words
Digit, estimate, fluency, place value, round, strategic thinking, strategy	Thousandth, tenth, part-whole strategy, hundredth, decimal, decimal point, decimal fraction  <a href="#">K-12 Mathematics Glossary</a>

**Assessments**

**Formative Assessment(s):**  
 Standards:  
 5.NR.4.1  
 5.NR.4.2  
 5.NR.4.3  
 5.NR.4.4  
 Unit 6 Summative Assessment

Savvas Performance Assessment TE pp. 39-40 - Students will create a real life scenario involving fruits and vegetables to write, compare and order decimals.

***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		Differentiation Considerations
<p><b>5.NR.4.1</b> Read and write decimal numbers to the thousandths place using base-ten numerals written in standard form and expanded form.</p>	<p style="text-align: center;"><b><u>GA DOE Learning Plans</u></b></p> <p><b><u>Decimal Designs</u></b>  <i>In this learning plan, students will represent, read, and write decimals to tenths and hundredths. (1-2 days)</i></p> <p><a href="#">Teacher Guidance</a>  <a href="#">Student Reproducibles</a></p> <p><b><u>Reasoning With Place Value</u></b>  <i>In this learning plan, students will play games using place value charts to create the largest possible number by rolling a die and recording digits on the chart one at a time. (2-3 days)</i>  <i>*This plan also includes elements of 5.NR.4.2</i></p> <p><a href="#">Teacher Guidance</a>  <a href="#">Student Reproducibles</a>  <a href="#">Blackline Master</a></p> <p><b><u>Making Sense of Place Value Places</u></b>  <i>In this learning plan, students will play games using place value charts to create the largest possible decimal number by rolling a die and recording digits on the chart one at a time (1-2 days).</i></p> <p><a href="#">Teacher Guidance</a>  <a href="#">Student Reproducibles</a></p>	<p style="text-align: center;"><b><u>MCS Curriculum Resources</u></b></p> <p><b><u>SAVVAS enVision Topic 1: Understand Place Value</u></b>  <i>Students expand their understanding of the place-value system for whole numbers and decimals. They read, write, and compare decimals to thousandths.</i></p> <ul style="list-style-type: none"> <li>● Lesson 1-3: Decimals to Thousandths</li> <li>● Lesson 1-4: Understanding Decimal Place Value</li> </ul> <p><b><u>MIP Module 1: Understanding Place Value</u></b>  <i>The key ideas in this module focus on reading and writing decimals to the thousandths place in word form, base-ten form, and expanded form, understanding powers of ten, comparing two decimals to the thousandths and rounding decimals to any place.</i></p> <ul style="list-style-type: none"> <li>● Rethinking expanded form pp. 16-17</li> <li>● Place Value Partners pp. 19</li> <li>● Expanded Form Chart pp. 19</li> <li>● Reading and Writing Decimals to Thousandths pp. 22-24</li> <li>● Expanded Form with Decimals pp. 24</li> </ul>	<p><a href="#">Card Ordering</a>: Identify and order decimals to three places.</p> <p><a href="#">Rocket - Where will I fit?</a>: Identify and order decimals to three places.</p>
<p><b>5.NR.4.2</b>  Represent, compare, and order decimal numbers to the thousandths place based on the meanings of the digits in each place, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math></p>	<p><b><u>Linear Model Decimal Fractions</u></b>  <i>In this learning plan, students will apply their understanding of decimal numbers to read, write, compare, and order decimal numbers. (1-2 days)</i></p> <p><a href="#">Teacher Guidance</a>  <a href="#">Student Reproducibles</a></p> <p><b><u>Winner! Winner!</u></b></p>	<p><b><u>SAVVAS enVision Topic 1: Understand Place Value</u></b>  <i>Students expand their understanding of the place-value system for whole numbers and decimals. They read, write, and compare decimals to thousandths.</i></p> <ul style="list-style-type: none"> <li>● Lesson 1-5: Compare Decimals</li> </ul> <p><b><u>MIP Module 1: Understanding Place Value</u></b>  <i>The key ideas in this module focus on reading and writing decimals to the thousandths place in word form, base-ten form,</i></p>	<p><a href="#">Who Wins?</a>: Identify and order decimals to three places.</p> <p><a href="#">Building Decimals</a>: Find the number of tenths, hundredths, and one-thousandths in numbers of up to three decimal places.</p>

<p>symbols to record the results of comparisons.</p>	<p><i>In this learning plan, students will connect place value understanding to work with decimals. (1-2 days) *This plan also includes elements of 5.NR.4.3</i></p> <p><a href="#">Teacher Guidance</a> <a href="#">Student Reproducibles</a></p>	<p><i>and expanded form, understanding powers of ten, comparing two decimals to the thousandths and rounding decimals to any place.</i></p> <ul style="list-style-type: none"> <li>• Comparing Decimals pp. 12-13 (anchor chart)</li> <li>• Comparing Decimals using Place Value pp. 35-36</li> <li>• Comparing Decimals using a Number Line pp. 36-37</li> </ul>	
<p><b>5.NR.4.3</b> Use place value understanding to round decimal numbers to the hundredths place.</p>	<p><b><u>Rounding Decimal Numbers</u></b> <i>In this learning plan, students will use their prior knowledge of place value and rounding whole numbers to round decimal numbers to the hundredths place in practical, mathematical problems using visual aids. (1-2 days)</i></p> <p><a href="#">Teacher Guidance</a> <a href="#">Student Reproducibles</a></p>	<p><b><u>SAVVAS enVision Topic 1: Understand Place Value</u></b> <i>Students expand their understanding of the place-value system for whole numbers and decimals. They read, write, and compare decimals to thousandths.</i></p> <ul style="list-style-type: none"> <li>• Lesson 1-6: Round Decimals</li> </ul> <p><b><u>MIP Module 1: Understanding Place Value</u></b> <i>The key ideas in this module focus on reading and writing decimals to the thousandths place in word form, base-ten form, and expanded form, understanding powers of ten, comparing two decimals to the thousandths and rounding decimals to any place.</i></p> <ul style="list-style-type: none"> <li>• Rounding Decimals using models (2 activities) pp. 41-45</li> </ul>	<p><a href="#">Rounding Decimals</a>: Round whole numbers and decimals, with up to two places, to the nearest whole number, or tenth.</p> <p><a href="#">Sensible Rounding</a>: Round whole numbers and decimals, with up to two places, to the nearest whole number, or tenth.</p> <p><a href="#">Swedish Rounding</a>: Round whole numbers and decimals, with up to two places, to the nearest whole number, or tenth.</p>
<p><b>5.NR.4.4</b> Solve problems involving addition and subtraction of decimal numbers to the hundredths place using a variety of strategies</p>	<p><b><u>Decimal Fractions Addition and Subtraction</u></b> <i>In this learning plan, students will extend their understanding of adding and subtracting multi-digit numbers to evaluate sums and differences with decimal fractions. Students find sums and differences using visual representations to make sense of decimal operations. (1-2 days)</i></p> <p><a href="#">Teacher Guidance</a> <a href="#">Student Reproducibles</a> <a href="#">Blackline Master</a></p>	<p><b><u>SAVVAS enVision Topic 2: Use Models and Strategies to Add and Subtract Decimals.</u></b> <i>Students extend their understanding of multi-digit multiplication and division with whole numbers. They develop an understanding of operations with decimals.</i></p> <ul style="list-style-type: none"> <li>• Lesson 2-2: Estimating sums and differences of decimals.</li> <li>• Lesson 2-3: Use models to add and subtract decimals.</li> <li>• Lesson 2-4: Use strategies to add decimals.</li> <li>• Lesson 2-5: Use strategies to subtract decimals.</li> </ul>	<p><a href="#">Adding with decimal fractions</a>: Solve problems that involve adding and subtracting decimals.</p> <p><a href="#">Fractional Blocks</a>: Solve problems that involve adding and subtracting decimals.</p>

	<p><b><u>Addition and Subtraction of Decimal Numbers in Context</u></b>  <i>In this learning plan, students will extend their understanding of adding multi-digit whole numbers to evaluate sums and differences with decimal numbers in various contexts. Students find sums and differences in a way that makes sense to them. (2-3 days)</i></p> <p><a href="#">Teacher Guidance</a>  <a href="#">Student Reproducibles</a></p>	<p><b><u>MIP Module 5: Adding and Subtracting Decimals</u></b>  <i>The key ideas in this module focus on using place value understanding to add and subtract decimals to hundredths ,making connections between whole number computations and decimal computations , and using decimal understanding to estimate sums and differences and determine the reasonableness of answers.</i></p> <ul style="list-style-type: none"> <li>● Modeling Addition with Base-Ten Blocks and Grids pp.107-109</li> <li>● Modeling the Subtraction Process pp. 107-109</li> </ul>	<p><a href="#">How two decimals so ugly make one decimal so beautiful:</a>  Solve problems that involve adding and subtracting decimals.</p>
<p><b>5.MDR.7.2</b>  Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.</p>	<p><b><u>Constructive and Destructive Processes Investigative Research Task</u></b>  <i>In this investigative research task, students will justify the use of technology and human interventions when they were used to prevent situations where destructive and constructive processes occurred. (2-3 days)</i></p> <p><a href="#">Teacher Guidance</a></p>	<p><b><u>SAVVAS enVision Topic 2: Use Models and Strategies to Add and Subtract Decimals.</u></b>  <i>Students extend their understanding of multi-digit multiplication and division with whole numbers. They develop an understanding of operations with decimals.</i></p> <ul style="list-style-type: none"> <li>● Pick a Project 2C: Calorie Information in Restaurant Menus.</li> <li>● Pick a Project 2D: Useful Tools for Traveling.</li> </ul> <p><b><u>MIP Module 5: Adding and Subtracting Decimals</u></b>  <i>The key ideas in this module focus on using place value understanding to add and subtract decimals to hundredths ,making connections between whole number computations and decimal computations , and using decimal understanding to estimate sums and differences and determine the reasonableness of answers.</i></p> <ul style="list-style-type: none"> <li>● Focus on the Question pp. 119</li> </ul>	

**Content Resources**

<p><b>MCS Links:</b></p> <ul style="list-style-type: none"> <li>● <a href="#">MCS Math Curriculum Map</a></li> <li>● <a href="#">MCS Math Instructional Framework</a></li> </ul> <p><b>GA DOE Links:</b></p> <ul style="list-style-type: none"> <li>● Access all GADOE Curriculum Resources at the following site: <a href="#">GaDOE Inspire</a>.</li> </ul>	<p><b>Additional Resources:</b></p> <ul style="list-style-type: none"> <li>● Buzz In - 3-Act-Task: Savvas TE pp. 4: Students try to figure out who hit the buzzer closest to 3 seconds.</li> <li>● <a href="#">Read, Write and Compare Decimals to the Thousandths</a></li> <li>● <a href="#">Read, Write and Represent Decimals</a></li> <li>● <a href="#">Decimal Puzzles</a></li> </ul>
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|  | <ul style="list-style-type: none"><li>• <a href="#">Guess My Decimal</a></li><li>• <a href="#">Decimal of the Day</a></li><li>• <a href="#">Rounding Decimals</a></li><li>• <a href="#">Race to 100</a> - adding decimals</li><li>• <a href="#">Decimal Magic Squares</a></li><li>• <a href="#">Decimal Animals in Base 10</a> - design an animal with base 10 blocks, then add it together to make a decimal.</li></ul> |
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