

Curriculum Map

Content Area: Mathematics

Course Title: Grade 3 Mathematics

Grade Level: 3

Unit 1-Adding and Subtracting within  
1,000

3 weeks

Unit 2-Represent and Interpret Data

2 weeks

Unit 3-Understand Multiplication

2 weeks

Unit 4-Multiplication Facts and  
Strategies

3 weeks

Unit 5-Use Multiplication Facts

2 weeks

Unit 6-Understand Division

3 weeks

Unit 7- Division Facts and Strategies

3 weeks

<b>Unit 8-Understand Fractions</b>	<b>3 weeks</b>
<b>Unit 9-Compare Fractions</b>	<b>2 weeks</b>
<b>Unit 10- Time, Length, Liquid Volume, and Mass</b>	<b>3 weeks</b>
<b>Unit 11-Perimeter and Area</b>	<b>3 weeks</b>
<b>Unit 12-Two-Dimensional Shapes</b>	<b>3 weeks</b>
<b>Date Created: August 2015</b>	
<b>Board Approved on: August 27, 2015</b>	

Unit 1 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 1 Title:</b> Adding and Subtracting within 1,000	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Operations and Algebraic Thinking                      Number and Operations in Base Ten</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>3-LS1-1.</b> Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.6	Attend to precision.
CC.K-12.MP.7	Look for and make use of structure.
<p><b>Unit Essential Questions</b></p> <ul style="list-style-type: none"> <li>• How can you use properties to explain patterns on the addition table?</li> <li>• How can you round numbers?</li> <li>• How can you use compatible numbers and rounding to estimate sums?</li> <li>• What mental math strategies can you use to find sums?</li> <li>• How can you add more than two addends?</li> <li>• How can you use the break apart strategy to add 3-digit numbers?</li> <li>• How can you use place value to add 3-digit numbers?</li> <li>• How can you use compatible numbers and rounding to estimate differences?</li> <li>• What mental math strategies can you use to find differences?</li> <li>• How can you use place value to subtract 3-digit numbers?</li> <li>• How can you use the combine place values strategy to subtract 3-digit numbers?</li> <li>• How can you use the strategy <i>draw a diagram</i> to solve one-and two-step addition and</li> </ul>	

subtraction problems?

**Student Learning Objectives**

- Identify and describe whole-number patterns and solve problems.
- Round 2 and 3 digit numbers to the nearest ten or hundred.
- Use compatible numbers and rounding to estimate sums.
- Count by tens and ones, using a number line, make compatible numbers, or use friendly numbers to find sums mentally.
- Use the Commutative and Associative Properties of Addition to add more than two addends.
- Use the break apart strategy to add 3-digit numbers.
- Use place value to add 3-digit numbers.
- Use compatible numbers and rounding to estimate differences.
- Use a number line, friendly numbers, or the break apart strategy to find differences mentally.
- Use place value to subtract 3-digit numbers.
- Use the combine place values strategy to subtract 3-digit numbers.
- Solve addition and subtraction problems by using the strategy *draw a diagram*.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.OA.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
CC.3.OA.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.
CC.3.NBT.1	Use place value understanding to round whole numbers to the nearest 10 or 100.
CC.3.NBT.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

**Unit Vocabulary**

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|---|---|
| <ul style="list-style-type: none"> <li>• Commutative Property of Addition</li> <li>• Identity Property of Addition</li> <li>• pattern</li> <li>• even</li> <li>• odd</li> </ul> | <ul style="list-style-type: none"> <li>• estimate</li> <li>• Associative Property of Addition</li> <li>• regroup</li> </ul> |
|---|---|

- round
- compatible numbers

**Evidence of Learning**

**Summative Assessment:**

- Chapter Review/Test
- Performance Assessment
- Chapter Test
- Online Assessment

**Benchmark:** Go Math Benchmark

**Equipment needed:** Go Math Student Textbook, Manipulatives Kit; Differentiated Centers

**Teacher Resources:** [wwwk-6.thinkcentral.com](http://wwwk-6.thinkcentral.com)

**Modifications: (Special education, ELLs, at-risk students, gifted and talented)**

- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

**Formative Assessments**

- Lesson Quick Check
- Mid-Chapter Checkpoint
- COREK12

Unit 2 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 2 Title:</b> Represent and Interpret Data	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Measurement and Data</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>3-LS4-1.</b> Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.1	Make sense of problems and persevere in solving them.
CC.K-12.MP.4	Model with mathematics.
<p><b>Unit Essential Questions</b></p> <ul style="list-style-type: none"> <li>• How can you use the strategy <i>make a table</i> to organize data and solve problems?</li> <li>• How can you read and interpret data in a picture graph?</li> <li>• How can you draw a picture graph to show data in a table?</li> <li>• How can you read and interpret data in a bar graph?</li> <li>• How can you draw a bar graph to show data in a table or picture graph?</li> <li>• How can you solve problems using data represented in bar graphs?</li> <li>• How can you read and interpret data in a line plot and use data to make a line plot?</li> </ul>	
<p><b>Student Learning Objectives</b></p> <ul style="list-style-type: none"> <li>• Organize data in tables and solve problems using the strategy <i>make a table</i>.</li> <li>• Read and interpret data in a scaled picture graph.</li> <li>• Draw a scaled picture graph to show data in a table.</li> </ul>	

- Read and interpret data in a scaled bar graph.
- Draw a scaled bar graph to show data in a table or picture graph.
- Solve one-and two-step compare problems using data represented in scaled bar graphs.
- Read and interpret data in a line plot and use data to make a line plot.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.MD.3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one-and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.
CC.3.MD.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units-wholes numbers, halves, or quarters.

**Unit Vocabulary**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• frequency table</li> <li>• data</li> <li>• tally table</li> <li>• key</li> <li>• picture graph</li> </ul> | <ul style="list-style-type: none"> <li>• experiment</li> <li>• survey</li> <li>• bar graph (horizontal/vertical)</li> <li>• scale</li> <li>• skip count</li> <li>• line plot</li> </ul> |
|--|---|

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- Menus
- Choice Boards
- Tiered Assignments
- Partner work

**Brigantine Public School District**

**ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21<sup>ST</sup> CENTURY GLOBAL SKILLS**

- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

**Formative Assessments**

- Lesson Quick Check
- Mid-Chapter Checkpoint
- COREK12



Unit 3 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 3 Title:</b> Understand Multiplication	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Operations and Algebraic Thinking: Represent and solve problems involving multiplication and division.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>SL.3.1.D</b> Explain their own ideas and understanding in light of the discussion.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.2	Reason abstractly and quantitatively.
CC.K-12.MP.8	Look for and express regularity in repeated reasoning.
<p><b>Unit Essential Questions</b></p> <ul style="list-style-type: none"> <li>• How can you use equal groups to find how many in all?</li> <li>• How is multiplication like addition? How is it different?</li> <li>• How can you use a number line to skip count and find how many in all?</li> <li>• How can you use the strategy draw a diagram to solve one-and two-step problems?</li> <li>• How can you use arrays to model multiplication and find factors?</li> <li>• How can you use the Commutative Property of Multiplication to find products?</li> <li>• What happens when you multiply a number by 0 or 1?</li> </ul>	
<p><b>Student Learning Objectives</b></p> <ul style="list-style-type: none"> <li>• Model and skip count objects in equal groups to find how many there are.</li> <li>• Write an addition sentence and a multiplication sentence for a model.</li> <li>• Model and skip count on a number line to find how many there are.</li> </ul>	

- Solve one-and two-step problems by using the strategy *draw a diagram*.
- Use arrays to model products and factors.
- Model the Commutative property of Multiplication and use it to find products.
- Model multiplication with the factors 1 and 0.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.OA.1	Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in 5 groups of 7 objects each.
CC.3.OA.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CC.3.OA.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
CC.3.OA.5	Apply properties of operations as strategies to multiply and divide.

#### Unit Vocabulary

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• equal groups</li> <li>• factor</li> <li>• multiply</li> <li>• product</li> <li>• addition</li> </ul> | <ul style="list-style-type: none"> <li>• array</li> <li>• Commutative Property of Multiplication</li> <li>• Identity Property of Multiplication, Zero Property of Multiplication</li> </ul> |
|---|---|

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- Partner work
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- Compacting
- Varying question levels

**Formative Assessments**

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**Unit 4 Overview**

**Content Area:** Mathematics

**Unit 4 Title:** Multiplication Facts and Strategies

**Grade Level:** 3

**Unit Summary:** Operations and Algebraic Thinking: Represent and solve problems involving multiplication and division.

**Primary interdisciplinary connections:** Science/Social Studies/Reading/Language Arts

**SL.3.1.D** Explain their own ideas and understanding in light of the discussion.

**21<sup>st</sup> century themes:**

- Information and communication skills
- Higher order thinking skills
- Problem solving skills
- Independent learners
- Real-world connections

**CRP4.** Communicate clearly and effectively and with reason.

**CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.

**Learning Targets**

**Mathematical Practices**

CC.K-12.MP.3	Construct viable arguments and critique the reasoning of others.
CC.K-12.MP.7	Look for and make use of structure.

**Unit Essential Questions**

- How can you multiply with 2 and 4?
- How can you multiply with 5 and 10?
- What are some ways to multiply with 3 and 6?
- How can you use the Distributive Property to find products?
- What strategies can you use to multiply with 7?

- How can you use the Associative property of Multiplication to find products?
- How can you use properties to explain patterns on the multiplication table?
- What strategies can you use to multiply with 8?
- What strategies can you use to multiply with 9?
- How can you use the strategy *make a table* to solve multiplication problems?

**Student Learning Objectives**

- Draw a picture, count by 2s, or use doubles to multiply with the factors 2 and 4.
- Use skip counting, a number line, or a bar model to multiply with the factors 5 and 10.
- Draw a picture, use 5s facts and addition, doubles, or a multiplication table to multiply with the factors 3 and 6.
- Use the Distributive Property to find products by breaking apart arrays.
- Use the Commutative or Distributive Property or known facts to multiply with the factor 7.
- Use the associative Property of Multiplication to multiply with three factors.
- Identify and explain patterns on the multiplication table.
- Use doubles, a number line, or the Associative Property of Multiplication to multiply with the factor 8.
- Use the Distributive Property with addition or subtraction or patterns to multiply with the factor 9.
- Solve multiplication problems by using the strategy *make a table*.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.OA.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CC.3.OA.5	Apply properties of operations as strategies to multiply and divide. <i>Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known. (Commutative property of multiplication.) <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math>, then <math>15 \times 2 = 30</math> or by <math>5 \times 2 = 10</math>, then <math>3 \times 10 = 30</math>, (Associative property of multiplication.) Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math> one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + 16 = 40 + 16 = 56</math>. (Distributive Property).</i>
CC.3.OA.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$ , one knows $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
CC.3.OA.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

CC.3.OA.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
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**Unit Vocabulary**

<ul style="list-style-type: none"> <li>• factor</li> <li>• product</li> <li>• multiple</li> <li>• Distributive Property</li> <li>• addend</li> <li>• sum</li> </ul>	<ul style="list-style-type: none"> <li>• Commutative Property of Multiplication</li> <li>• Associative Property of Multiplication</li> <li>• even</li> <li>• odd</li> <li>• subtraction</li> </ul>
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- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

**Formative Assessments**

- Lesson Quick Check
- Mid-Chapter Checkpoint
- COREK12

Unit 5 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 5 Title:</b> Use Multiplication Facts	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Operations and Algebraic Thinking Number and Operations in Base Ten: Represent and solve problems involving multiplication and division.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>3-LS2-1.</b> Construct an argument that some animals form groups that help members survive.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.1	Make sense of problems and persevere in solving them.
CC.K-12.MP.5	Use appropriate tools strategically.
<b>Unit Essential Questions</b>	
<ul style="list-style-type: none"> <li>• What are some ways you can describe a pattern in a table?</li> <li>• How can you use an array or a multiplication table to find an unknown factor?</li> <li>• How can you use the strategy <i>draw a diagram</i> to multiply with multiples of 10?</li> <li>• What strategies can you use to multiply with multiples of 10?</li> <li>• How can you model and record multiplying multiples of 10 by 1-digit whole numbers?</li> </ul>	
<b>Student Learning Objectives</b>	
<ul style="list-style-type: none"> <li>• Identify and describe a number pattern shown in a function table.</li> <li>• Use an array or a multiplication table to find an unknown factor.</li> <li>• Solve multiplication problems by using the strategy draw a diagram.</li> <li>• Use base-ten blocks, a number line, or place value to multiply with multiples of 10.</li> <li>• Model and record multiplication with multiples of 10.</li> </ul>	
<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>

CC.3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
CC.3.OA.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table).
CC.3.NBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., $9 \times 80$ , $5 \times 60$ ) using strategies based on place value and properties of operations.
<b>Unit Vocabulary</b>	
<ul style="list-style-type: none"> <li>• pattern</li> <li>• Equation, array, Commutative Property of Multiplication</li> <li>• factor</li> <li>• product</li> </ul>	<ul style="list-style-type: none"> <li>• Distributive Property</li> <li>• multiple</li> <li>• place value</li> <li>• tens</li> <li>• hundreds</li> <li>• ones</li> </ul>
<b>Evidence of Learning</b>	
<p><b>Summative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Chapter Review/Test</li> <li>• Performance Assessment</li> <li>• Chapter Test</li> <li>• Online Assessment</li> </ul> <p><b>Benchmark: Go Math Benchmark</b></p> <p><b>Equipment needed:</b> Go Math Student Textbook, Manipulatives Kit; Differentiated Centers</p> <p><b>Teacher Resources:</b> <a href="http://wwwk-6.thinkcentral.com">wwwk-6.thinkcentral.com</a></p>	
<p><b>Modifications: (Special education, ELLs, at-risk students, gifted and talented)</b></p> <ul style="list-style-type: none"> <li>• Menus</li> <li>• Choice Boards</li> <li>• Tiered Assignments</li> <li>• Partner work</li> <li>• Manipulatives</li> <li>• Flexible grouping</li> <li>• Individualizing lessons</li> <li>• Compacting</li> <li>• Varying question levels</li> </ul>	
<p><b>Formative Assessments</b></p> <ul style="list-style-type: none"> <li>• Lesson Quick Check</li> <li>• Mid-Chapter Checkpoint</li> <li>• COREK12</li> </ul>	

Unit 6 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 6 Title:</b> Understand Division	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Operations and Algebraic Thinking: Represent and solve problems involving multiplication and division.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>SL.3.1.D</b> Explain their own ideas and understanding in light of the discussion.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.2	Reason abstractly and quantitatively.
Cc.K-12.MP.7	Look for and make use of structure.
<p><b>Unit Essential Questions</b></p> <ul style="list-style-type: none"> <li>• How can you use the strategy <i>act it out</i> to solve problems with equal groups?</li> <li>• How can you model a division problem to find how many in each group?</li> <li>• How can you model a division problem to find how many equal groups?</li> <li>• How can you use bar models to solve division problems?</li> <li>• How is division related to subtraction?</li> <li>• How can you use arrays to solve division problems?</li> <li>• How can you use multiplication to divide?</li> <li>• How can you write a set of related multiplication and division facts?</li> <li>• What are the rules for dividing with 1 and 0?</li> </ul>	
<b>Student Learning Objectives</b>	
<ul style="list-style-type: none"> <li>• Solve division problems by using the strategy act it out.</li> </ul>	



- Use models to explore the meaning of partitive (sharing) division.
- Use models to explore the meaning of quotative (measurement) division.
- Model division by using equal groups and bar models.
- Use repeated subtraction and a number line to relate subtraction to division.
- Model division by using arrays.
- Use bar models and arrays to relate multiplication and division as inverse operations.
- Write related multiplication and division facts.
- Divide using the rules for 1 and 0.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.OA.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CC.3.OA.2	Interpret whole-number quotients of whole numbers, e.g., interpret $56/8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.
CC.3.OA.6	Understand division as an unknown-factor problem.
CC.3.OA.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$ , one knows $40/5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
CC.3.OA.5	Apply properties of operations as strategies to multiply and divide. Examples: if $6 \times 4 = 24$ is known, then 4 to multiply and divide. <i>Examples: if <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known. (Commutative property of multiplication). <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math>, then <math>15 \times 2 = 30</math>, or by <math>5 \times 2 = 10</math> then <math>3 \times 10 = 30</math>. (Associative property of multiplication). Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56</math>. (Distributive property).</i>

**Unit Vocabulary**

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• divide</li> <li>• equal groups</li> <li>• dividend</li> <li>• divisor</li> <li>• quotient</li> </ul> | <ul style="list-style-type: none"> <li>• array</li> <li>• inverse operations</li> <li>• related facts</li> <li>• factor</li> <li>• product</li> <li>• Identity Property of Multiplication</li> </ul> |
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**Evidence of Learning**

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- Chapter Review/Test
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- Chapter Test
- Online Assessment

**Benchmark:** Go Math Benchmark

**Equipment needed:** Go Math Student Textbook, Manipulatives Kit; Differentiated Centers

**Teacher Resources:** [www.k-6.thinkcentral.com](http://www.k-6.thinkcentral.com)

**Modifications: (Special education, ELLs, at-risk students, gifted and talented)**

- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

**Formative Assessments**

- Lesson Quick Check
- Mid-Chapter Checkpoint
- COREK12

Unit 7 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 7 Title:</b> Division Facts and Strategies	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Operations and Algebraic Thinking: Represent and solve problems involving multiplication and division.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>3-ESS2-2.</b> Obtain and combine information to describe climates in different regions of the world.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.3	Construct viable arguments and critique the reasoning of others.
CC.K-12.MP.7	Look for and make use of structure.
<b>Unit Essential Questions</b>	
<ul style="list-style-type: none"> <li>• What does dividing by 2 mean?</li> <li>• What strategies can you use to divide by 10?</li> <li>• What does dividing by 5 mean?</li> <li>• What strategies can you use to divide by 3?</li> <li>• What strategies can you use to divide by 4?</li> <li>• What strategies can you use to divide by 6?</li> <li>• What strategies can you use to divide by 7?</li> <li>• What strategies can you use to divide by 8?</li> <li>• What strategies can you use to divide by 9?</li> <li>• How can you use the strategy <i>act it out</i> to solve two-step problems?</li> <li>• Why are there rules such as the order of operations?</li> </ul>	
<b>Student Learning Objectives:</b>	
<ul style="list-style-type: none"> <li>• Use models to represent division by 2.</li> </ul>	

- Use repeated subtraction, a number line, or a multiplication table to divide by 10.
- Count up by 5s, count back on a number line, or use 10s facts and doubles to divide by 5.
- Use equal groups, a number line, or a related multiplication fact to divide by 3.
- Use an array, equal groups, factors, or a related multiplication fact to divide by 4.
- Use equal groups, a related multiplication fact, or factors to divide by 6.
- Use an array, a related multiplication fact, or equal groups to divide by 7.
- Use repeated subtraction, a related multiplication fact, or a multiplication table to divide by 8.
- Use equal groups, factors, or a related multiplication fact to divide by 9.
- Solve two-step problems by using the strategy *act it out*.
- Perform operations in order when there are no parentheses.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.OA.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CC.3.OA.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$ , one knows $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
CC.3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
CC.3.OA.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

**Unit Vocabulary**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• dividend</li> <li>• divisor</li> <li>• factor</li> </ul> | <ul style="list-style-type: none"> <li>• product</li> <li>• array</li> <li>• order of operations</li> </ul> |
|---|---|

**Evidence of Learning**

**Summative Assessment:**

- Chapter Review/Test
- Performance Assessment
- Chapter Test
- Online Assessment

**Benchmark: Go Math Benchmark**

**Equipment needed:** Go Math Student Textbook, Manipulatives Kit; Differentiated Centers

**Teacher Resources:** [www.k-6.thinkcentral.com](http://www.k-6.thinkcentral.com)

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- Partner work
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- Varying question levels

**Formative Assessments**

- Lesson Quick Check
- Mid-Chapter Checkpoint
- COREK12

Unit 8 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 8 Title:</b> Understand Fractions	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Number and Operations-Fractions: Develop understanding of fractions as numbers.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>3-ESS2-1.</b> Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.2	Reason abstractly and quantitatively.
CC.K-12.MP.4	Model with mathematics.
<p><b>Unit Essential Questions</b></p> <ul style="list-style-type: none"> <li>• What are equal parts of a whole?</li> <li>• Why do you need to know how to make equal shares?</li> <li>• What do the top and bottom numbers of a fraction tell?</li> <li>• How does a fraction name part of a whole?</li> <li>• How can you represent and locate fractions on a number line?</li> <li>• When might you use a fraction greater than 1 or a whole number?</li> <li>• How can a fraction name part of a group?</li> <li>• How can a fraction tell how many are in part of a group?</li> <li>• How can you use the strategy <i>draw a diagram</i> to solve fraction problems?</li> </ul>	
<b>Student Learning Objectives</b>	
<ul style="list-style-type: none"> <li>• Explore and identify equal parts of a whole.</li> </ul>	

- Divide models to make equal shares.
- Use a fraction to name one part of a whole that is divided into equal parts.
- Read, write, and model fractions that represent more than one part of a whole that is divided into equal parts.
- Represent and locate fractions on a number line.
- Relate fractions and whole numbers by expressing whole numbers as fractions and recognizing fractions that are equivalent to whole numbers.
- Model, read, and write fractional parts of a group.
- Find fractional parts of a group using unit fractions.
- Solve fraction problems by using the strategy *draw a diagram*.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.NF.1	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts: understand a fraction $a/b$ as the quantity formed by $a$ parts of size $1/b$ .
CC.3.NF.2	Understand a fraction as number on the number line: represent fractions on a number line diagram. <ul style="list-style-type: none"> <li>a. Represent a fraction <math>1/b</math> on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into <math>b</math> equal parts. Recognize that each part has size <math>1/b</math> and that the endpoint of the part based at 0 locates the number <math>1/b</math> on the number line.</li> <li>b. Represent a fraction <math>a/b</math> on a number line diagram by marking off <math>a</math> lengths <math>1/b</math> from 0. Recognize that the resulting interval has size <math>a/b</math> and that its endpoint locates the number <math>a/b</math> on the number line.</li> </ul>
CC.3.NF.3	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. <ul style="list-style-type: none"> <li>c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. <i>Examples: Express 3 in the form of <math>3 = 3/1</math>; recognize that <math>6/1=6</math>; locate <math>4/4</math> and 1 at the same point of a number line diagram.</i></li> </ul>

**Unit Vocabulary**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• eighths</li> <li>• equal parts</li> <li>• fourths</li> <li>• halves</li> <li>• sixths</li> <li>• thirds</li> </ul> | <ul style="list-style-type: none"> <li>• whole</li> <li>• fraction</li> <li>• unit fraction</li> <li>• denominator</li> <li>• numerator</li> <li>• fraction greater than 1</li> </ul> |
|---|---|

**Evidence of Learning**

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- Chapter Test
- Online Assessment

**Benchmark: Go Math** Benchmark

**Equipment needed:** Go Math Student Textbook, Manipulatives Kit; Differentiated Centers

**Teacher Resources:** [www.k-6.thinkcentral.com](http://www.k-6.thinkcentral.com)

**Modifications: (Special education, ELLs, at-risk students, gifted and talented)**

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- Individualizing lessons
- Compacting
- Varying question levels

**Formative Assessments**

- Lesson Quick Check
- Mid-Chapter Checkpoint
- COREK12



Unit 9 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 9 Title:</b> Compare Fractions	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Number and Operations-Fractions: Develop understanding of fractions as numbers.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>3-ESS2-1.</b> Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.2	Reason abstractly and quantitatively.
CC.K-12.MP.4	Model with mathematics.
<p><b>Unit Essential Questions</b></p> <ul style="list-style-type: none"> <li>• How can you use the strategy <i>act it out</i> to solve comparison problems?</li> <li>• How can you compare fractions with the same denominator?</li> <li>• How can you compare fractions with the same numerator?</li> <li>• What strategies can you use to compare fractions?</li> <li>• How can you compare and order fractions?</li> <li>• How can you use models to find equivalent fractions?</li> <li>• How can you use models to name equivalent fractions?</li> </ul>	
<p><b>Student Learning Objectives</b></p> <ul style="list-style-type: none"> <li>• Solve comparison problems by using the strategy <i>act it out</i>.</li> <li>• Compare fractions with the same denominator by using models and reasoning strategies.</li> <li>• Compare fractions with the same numerator by using models and reasoning strategies.</li> </ul>	

- Compare fractions by using models and strategies involving the size of the pieces in the whole.
- Compare and order fractions by using models and reasoning strategies.
- Model equivalent fractions by folding paper, using area models, and using number lines.
- Generate equivalent fractions by using models.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.NF.3	<p>Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p>d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols <math>\geq</math>, <math>=</math>, or <math>\leq</math>, and justify the conclusions, e.g., by using a visual fraction model.</p>
CC.3.NF.3	<p>Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p>a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.</p>
CC.3.NF.3	<p>Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p>b. Recognize and generate simple equivalent fractions, e.g., <math>\frac{1}{2} = \frac{2}{4}</math>, <math>\frac{4}{6} = \frac{2}{3}</math>. Explain why the fractions are equivalent, e.g., by using a visual fraction model.</p>

**Unit Vocabulary**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Compare equal to (<math>=</math>), greater than (<math>\geq</math>), less than (<math>\leq</math>)</li> <li>• denominator</li> <li>• numerator</li> </ul> | <ul style="list-style-type: none"> <li>• equivalent fractions</li> <li>• order</li> <li>• equivalent</li> </ul> |
|--|---|

**Evidence of Learning**

**Summative Assessment:**

- Chapter Review/Test
- Performance Assessment
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- Online Assessment

**Benchmark:** Go Math Benchmark

**Equipment needed:** Go Math Student Textbook, Manipulatives Kit; Differentiated Centers

**Teacher Resources:** [wwwk-6.thinkcentral.com](http://wwwk-6.thinkcentral.com)

**Modifications: (Special education, ELLs, at-risk students, gifted and talented)**

- Menus

- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

**Formative Assessments**

- Lesson Quick Check
- Mid-Chapter Checkpoint
- COREK12

Unit 10 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 10 Title:</b> Time, Length, Liquid Volume, and Mass	
<b>Grade Level:</b> 3	
<p><b>Unit Summary: Measurement and Data:</b> Solve problems involving the measurement and estimation of intervals of time, liquid volumes, and masses of objects.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>3-PS2-1.</b> Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
<b>Mathematical Practices</b>	
CC.K-12.MP.4	Model with mathematics.
CC.K-12:MP.5	Use appropriate tools strategically.
<p><b>Unit Essential Questions</b></p> <ul style="list-style-type: none"> <li>• How can you tell time to the nearest minute?</li> <li>• How can you tell when to use A.M. and P.M. with time?</li> <li>• How can you measure elapsed time in minutes?</li> <li>• How can you find a starting time or an ending time when you know the elapsed time?</li> <li>• How can you use the strategy <i>draw a diagram</i> to solve problems about time?</li> <li>• How can you generate measurement data and show the data on a line plot?</li> <li>• How can you estimate and measure liquid volume in metric units?</li> <li>• How can you estimate and measure mass in metric units?</li> <li>• How can you use models to solve liquid volume and mass problems?</li> </ul>	
<b>Student Learning Objectives</b>	
<ul style="list-style-type: none"> <li>• Read, write and tell time on analog and digital clocks to the nearest minute.</li> </ul>	

- Decide when to use A.M. and P.M. when telling time to the nearest minute.
- Use a number line or an analog clock to measure time intervals in minutes.
- Use a number line or an analog clock to add or subtract time intervals to find starting times or ending times.
- Solve problems involving addition and subtraction of time intervals by using the strategy *draw a diagram*.
- Measure length to the nearest half or fourth inch and use measurement data to make a line plot.
- Estimate and measure liquid volume in liters.
- Estimate and measure mass in grams and kilograms.
- Add, subtract, multiply, or divide to solve problems involving liquid volumes, or masses.

<b>CPI #</b>	<b>Cumulative Progress Indicator (CPI)</b>
CC.3.MD.1	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
CC.3.MD.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units-whole numbers, halves or quarters.
CC.3.MD.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

**Unit Vocabulary**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• minute</li> <li>• analog clock</li> <li>• digital clock</li> <li>• half hour</li> <li>• hour</li> <li>• quarter hour</li> <li>• A.M.</li> <li>• midnight</li> </ul> | <ul style="list-style-type: none"> <li>• noon</li> <li>• P.M.</li> <li>• elapsed time</li> <li>• inch (in.)</li> <li>• liquid volume</li> <li>• liter (l)</li> <li>• gram (g)</li> <li>• kilogram (kg)</li> <li>• mass</li> </ul> |
|--|---|

**Evidence of Learning**

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**Formative Assessments**

- Lesson Quick Check
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- COREK12

Unit 11 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 11 Title:</b> Perimeter and Area	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Measurement and Data: Geometric measurement: understand concepts of area and relate area to multiplication and to addition.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts</p> <p><b>3-ESS3-1.</b> Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
Mathematical Practices	
CC.K-12.MP.1	Make sense of problems and persevere in solving them.
CC.K-12.MP.2	Reason abstractly and quantitatively.
CC.K-12.MP.7	Look for and make use of structure.
CC.K-12.MP.8	Look for and express regularity in repeated reasoning.
Unit Essential Questions	
<ul style="list-style-type: none"> <li>• How can you find perimeter?</li> <li>• How can you measure perimeter?</li> <li>• How can you find the unknown length of a side in a plane shape when you know its perimeter?</li> <li>• How is finding the area of a shape different from finding the perimeter of a shape?</li> <li>• How can you find the area of a plane shape?</li> <li>• Why can you multiply to find the area of a rectangle?</li> <li>• How can you use the strategy <i>find a pattern</i> to solve area problems?</li> <li>• How can you break apart a shape to find the area?</li> <li>• How can you use area to compare rectangles with the same perimeter?</li> <li>• How can you use perimeter to compare rectangles with the same area?</li> </ul>	

**Student Learning Objectives**

- Explore perimeter of polygons by counting units on grid paper.
- Estimate and measure perimeter of polygons using inch and centimeter rulers.
- Find the unknown length of a side of a polygon when you know its perimeter.
- Explore perimeter and area as attributes of polygons.
- Estimate and measure area of plane shapes by counting unit squares.
- Relate area to addition and multiplication by using area models.
- Solve area problems by using the strategy *find a pattern*.
- Apply the Distributive Property to area models and to find the area of combined rectangles.
- Compare areas of rectangles that have the same perimeter.
- Compare perimeters of rectangles that have the same area.

CPI #	Cumulative Progress Indicator (CPI)
CC.3.MD.8	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
CC.3.MD.5	Recognize area as an attribute of plane figures and understand concepts of area measurement. <ul style="list-style-type: none"> <li>a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.</li> </ul>
CC.3.MD.5	Recognize area as an attribute of plane figures and understand concepts of area measurement. <ul style="list-style-type: none"> <li>b. A plane figure which can be covered without gaps or overlaps by <math>n</math> unit squares is said to have an area of <math>n</math> square units.</li> </ul>
CC.3.MD.6	Measure areas by counting unit squares (Square cm, square m, square in, square ft. and improvised units).
CC.3.MD.7	Relate area to the operations of multiplication and addition. <ul style="list-style-type: none"> <li>a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.</li> <li>b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.</li> <li>c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths <math>a</math> and <math>b=c</math> is the sum of <math>a \times b</math> and <math>a \times c</math>. Use area models to represent the distributive property in mathematical reasoning.</li> </ul>



d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

**Unit Vocabulary**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• perimeter</li> <li>• area</li> <li>• square unit (sq un)</li> <li>• unit square</li> </ul> | <ul style="list-style-type: none"> <li>• Distributive Property</li> <li>• multiplication</li> <li>• repeated addition</li> <li>• pattern</li> </ul> |
|---|---|

**Evidence of Learning**

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Unit 12 Overview	
<b>Content Area:</b> Mathematics	
<b>Unit 12 Title:</b> Two-Dimensional Shapes	
<b>Grade Level:</b> 3	
<p><b>Unit Summary:</b> Geometry: Reason with Shapes and their attributes.</p> <p><b>Primary interdisciplinary connections:</b> Science/Social Studies/Reading/Language Arts                      SL.3.1.D Explain their own ideas and understanding in light of the discussion.</p> <p><b>21<sup>st</sup> century themes:</b></p> <ul style="list-style-type: none"> <li>• Information and communication skills</li> <li>• Higher order thinking skills</li> <li>• Problem solving skills</li> <li>• Independent learners</li> <li>• Real-world connections</li> </ul> <p><b>CRP4.</b> Communicate clearly and effectively and with reason.</p> <p><b>CRP8.</b> Utilize critical thinking to make sense of problems and persevere in solving them.</p>	
Learning Targets	
Mathematical Practices	
CC.K-12.MP.1	Make sense of problems and persevere in solving them.
CC.K-12.MP.3	Construct viable arguments and critique the reasoning of others.
CC.K-12.MP.6	Attend to precision.
<p><b>Unit Essential Questions</b></p> <ul style="list-style-type: none"> <li>• What are some ways to describe two-dimensional shapes?</li> <li>• How can you describe angles in plane shapes?</li> <li>• How can you use line segments and angles to make polygons?</li> <li>• How can you describe line segments that are sides of polygons?</li> <li>• How can you use sides and angles to help you describe quadrilaterals?</li> <li>• How can you draw quadrilaterals?</li> <li>• How can you use sides and angles to help you describe triangles?</li> <li>• How can you use the strategy draw a diagram to classify plane shapes?</li> <li>• How can you divide shapes into parts with equal areas and write the area as a unit fraction of the whole?</li> </ul>	

**Student Learning Objectives**

- Identify and describe attributes of plane shapes.
- Describe angles in plane shapes.
- Identify polygons by the number of sides they have.
- Determine if lines or line segments are intersecting, perpendicular, or parallel.
- Describe, classify, and compare quadrilaterals based on their sides and angles.
- Draw quadrilaterals.
- Describe and compare triangles based on the number of sides that have equal length and by their angles.
- Solve problems by using the strategy draw a diagram to classify plane shapes.
- Partition shapes into parts with equal areas and express the area as a unit fraction of the whole.

CPI #	Cumulative Progress Indicator (CPI)
CC.3.G.1	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
CC.3.G.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.

**Unit Vocabulary**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Closed shape</li> <li>• Endpoint</li> <li>• Line</li> <li>• Line segment</li> <li>• Open shape</li> <li>• Plane shape</li> <li>• Point</li> <li>• Ray</li> <li>• Two-dimensional shape</li> <li>• Angle</li> <li>• Right angle</li> <li>• Vertex</li> <li>• Decagon</li> <li>• Hexagon</li> <li>• Octagon</li> </ul> | <ul style="list-style-type: none"> <li>• Pentagon</li> <li>• Polygon</li> <li>• Quadrilateral</li> <li>• Side</li> <li>• Triangle</li> <li>• Intersecting lines</li> <li>• Parallel lines</li> <li>• Perpendicular lines</li> <li>• Rectangle</li> <li>• Rhombus</li> <li>• Square</li> <li>• Trapezoid</li> <li>• Venn diagram</li> <li>• Area</li> <li>• Unit fraction</li> </ul> |
|---|---|

**Evidence of Learning**

**Summative Assessment:**

- Chapter Review/Test
- Performance Assessment
- Chapter Test
- Online Assessment

**Benchmark:** Go Math Benchmark

**Equipment needed:** Go Math Student Textbook, Manipulatives Kit; Differentiated Centers

**Teacher Resources:** [wwwk-6.thinkcentral.com](http://wwwk-6.thinkcentral.com)

**Modifications: (Special education, ELLs, at-risk students, gifted and talented)**

- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

**Formative Assessments**

- Lesson Quick Check
- Mid-Chapter Checkpoint