

## Grade Three Mathematics

Domain	<b>Operations and Algebraic Thinking</b>		
Cluster	<b>Represent and solve problems involving addition and subtraction</b>		<b>Pacing</b>  <b>Quarter 1:</b> Stepping Stones Modules 1, 2, 3 <b>Quarter 2:</b> Stepping Stones Modules 4, 5, 6 <b>Quarter 3:</b> Stepping Stones Modules 7, 8, 9 <b>Quarter 4:</b> Stepping Stones Modules 10, 11, 12
Standards	<p><b>1. Interpret products of whole numbers; e.g., interpret <math>5 \times 7</math> as the total number of objects in 5 groups of 7 objects each.</b>  <i>For example, describe a context in which a total number of objects can be expressed as <math>5 \times 7</math>.</i></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can interpret products in multiplication as multiple groups of a number.</li> <li>I can interpret products in multiplication as an array with rows and columns.</li> <li>I can interpret products in multiplication as the area of a rectangle or square.</li> </ul> <p><b>2. Interpret whole-number quotients of whole numbers; e.g., interpret <math>56 \div 8</math> 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.</b>  <i>For example, describe a context in which a number of shares or a number of groups can be expressed as <math>56 \div 8</math>.</i></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can explain division as a set of objects partitioned into an equal number of shares.</li> <li>I can identify the three parts of division equations.</li> <li>I can interpret quotients in division as multiple groups of a number of items.</li> </ul> <p><b>3. Use multiplication and division within 100 to solve word problems in</b></p>		<b>Content Elaborations</b>  <b>Standards of Mathematical Practice</b> <b>Mathematically proficient students:</b> <ol style="list-style-type: none"> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> <li>Model with mathematics</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b>Prior Knowledge From Second Grade</b></p> <p><b>Work with equal groups of objects to gain foundations for multiplication.</b></p> <ol style="list-style-type: none"> <li>Determine whether a group of objects (up to 20) has an odd or even number of members; e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.</li> <li>Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</li> </ol> <p><b>Advances to Fourth Grade</b></p> <p><b>Use the four operations with whole numbers to solve problems.</b></p> <ol style="list-style-type: none"> <li>Interpret a multiplication equation as a comparison; e.g., interpret <math>35 = 5 \times 7</math> as a statement that 35 is 5 times as many as 7 and 7 times as many as 5.</li> <li>Represent verbal statements of multiplicative comparisons as</li> </ol>

<p><i>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.</i></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>• I can determine when to multiply and divide in word problems.</li> <li>• I can represent multiplication and division word problems using drawings and equations with unknowns in all positions.</li> <li>• I can solve word problems involving equal groups, arrays, and measurement quantities using drawings and equations.</li> </ul> <p><b>4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers.</b>  <i>For example, determine the unknown number that makes the equation true in each of the equations <math>8 \times ? = 48</math>, <math>5 = \square \div 3</math>, <math>6 \times 6 = ?</math>.</i></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>• I can determine the unknown number in multiplication problems in all positions.</li> <li>• I can determine the unknown number in division problems in all positions.</li> </ul>	<p>multiplication equations.</p> <ol style="list-style-type: none"> <li>2. Multiply or divide to solve word problems involving multiplicative comparison; e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</li> <li>3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.</li> </ol>
<p><b>Content Vocabulary</b></p> <ul style="list-style-type: none"> <li>• multiplication</li> <li>• factor</li> <li>• product</li> <li>• division</li> <li>• dividend</li> <li>• divisor</li> <li>• quotient</li> <li>• array</li> <li>• equation</li> <li>• commutative property</li> <li>• associative property</li> <li>• distributive property</li> <li>• order of operations</li> <li>• estimation rounding</li> <li>• arithmetic pattern</li> </ul>	<p><b>Academic Vocabulary</b></p> <ul style="list-style-type: none"> <li>• determine</li> </ul>
<p><b>Formative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<p><b>Summative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>
<p><b>Resources</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<p><b>Enrichment Strategies</b></p>

Integrations	Intervention Strategies
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## Grade Three Mathematics

Domain	<b>Operations and Algebraic Thinking</b>	
Cluster	<b>Understand properties of multiplication and the relationship between multiplication and division.</b>	<p><b>Pacing</b></p> <p><b>Quarter 1:</b> Stepping Stones Modules 1, 2, 3  <b>Quarter 2:</b> Stepping Stones Modules 4, 5, 6  <b>Quarter 3:</b> Stepping Stones Modules 7, 8, 9  <b>Quarter 4:</b> Stepping Stones Modules 10, 11, 12</p>
Standards		<p><b>Content Elaborations</b></p> <p><b>Standards of Mathematical Practice</b></p> <p><b>Mathematically proficient students:</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b>Prior Knowledge From Second Grade</b></p> <p><b>Work with equal groups of objects to gain foundations for multiplication.</b></p> <ol style="list-style-type: none"> <li>3. Determine whether a group of objects (up to 20) has an odd or even number of members; e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.</li> <li>4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</li> </ol> <p><b>Advances to Fourth Grade</b></p> <p><b>Use the four operations with whole numbers to solve problems.</b></p> <ol style="list-style-type: none"> <li>1. Interpret a multiplication equation as a comparison; e.g., interpret <math>35 = 5 \times 7</math> as a statement that 35 is 5 times as many as 7 and 7 times as many as 5.</li> <li>5. Represent verbal statements of multiplicative comparisons as</li> </ol>

unknown factor.	<p>multiplication equations.</p> <ol style="list-style-type: none"> <li>2. Multiply or divide to solve word problems involving multiplicative comparison; e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</li> <li>3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.</li> </ol>
<b>Content Vocabulary</b> <ul style="list-style-type: none"> <li>• multiplication</li> <li>• division</li> <li>• commutative property</li> <li>• associative property</li> <li>• distributive property</li> </ul>	<b>Academic Vocabulary</b> <ul style="list-style-type: none"> <li>• explain</li> <li>• apply</li> </ul>
<b>Formative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<b>Summative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>
<b>Resources</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<b>Enrichment Strategies</b>
<b>Integrations</b>	<b>Intervention Strategies</b>

## Grade Three Mathematics

<p><b>Domain</b>    <i>Operations and Algebraic Thinking</i></p> <p><b>Cluster</b>    <i>Multiply and divide within 100.</i></p>	<p><b>Pacing</b></p> <p><b>Quarter 1:</b> Stepping Stones Modules 1, 2, 3  <b>Quarter 2:</b> Stepping Stones Modules 4, 5, 6  <b>Quarter 3:</b> Stepping Stones Modules 7, 8, 9  <b>Quarter 4:</b> Stepping Stones Modules 10, 11, 12</p>
<p><b>Standards</b></p> <p><b>7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that <math>8 \times 5 = 40</math>, one knows <math>40 \div 5 = 8</math>) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>• I can multiply any two numbers with a product within 100 with ease by picking and using strategies that will get to the answer quickly.</li> <li>• I can divide whole numbers with a divisor within 100 and with a whole number quotient with ease by picking and using strategies that will get to the answer quickly.</li> <li>• I can instantly recall from memory the product of any two one-digit numbers.</li> </ul>	<p><b>Content Elaborations</b></p> <p><b>Standards of Mathematical Practice</b></p> <p><b>Mathematically proficient students:</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b>Prior Knowledge From Second Grade</b></p> <p><b>Work with equal groups of objects to gain foundations for multiplication.</b></p> <ol style="list-style-type: none"> <li>3. Determine whether a group of objects (up to 20) has an odd or even number of members; e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.</li> <li>4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</li> </ol> <p><b>Advances to Fourth Grade</b></p> <p><b>Use the four operations with whole numbers to solve problems.</b></p> <ol style="list-style-type: none"> <li>1. Interpret a multiplication equation as a comparison; e.g., interpret <math>35 = 5 \times 7</math> as a statement that 35 is 5 times as many as 7 and 7 times as many as 5.</li> <li>5. Represent verbal statements of multiplicative comparisons as</li> </ol>

	<p>multiplication equations.</p> <ol style="list-style-type: none"> <li>2. Multiply or divide to solve word problems involving multiplicative comparison; e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</li> <li>3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.</li> </ol>
<b>Content Vocabulary</b> <ul style="list-style-type: none"> <li>• multiplication</li> <li>• division</li> <li>• commutative property</li> <li>• associative property</li> <li>• distributive property</li> </ul>	<b>Academic Vocabulary</b> <ul style="list-style-type: none"> <li>• fluently</li> <li>• recall</li> </ul>
<b>Formative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<b>Summative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>
<b>Resources</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<b>Enrichment Strategies</b>
<b>Integrations</b>	<b>Intervention Strategies</b>

## Grade Three Mathematics

Domain	<b>Operations and Algebraic Thinking</b>	
Cluster	<b><i>Solve problems involving the four operations, and identify and explain patterns in arithmetic.</i></b>	<b>Pacing</b>  <b>Quarter 1:</b> Stepping Stones Modules 1, 2, 3 <b>Quarter 2:</b> Stepping Stones Modules 4, 5, 6 <b>Quarter 3:</b> Stepping Stones Modules 7, 8, 9 <b>Quarter 4:</b> Stepping Stones Modules 10, 11, 12
Standards	<p><b>8. <i>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.</i></b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can choose the two correct operations needed to solve two-step word problems.</li> <li>I can write equations using a letter for the unknown number.</li> <li>I can decide if my answers are reasonable using mental math and estimation strategies including rounding.</li> </ul> <p><b>9. <i>Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</i></b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can identify and describe arithmetic patterns in number charts, addition tables, and multiplication tables.</li> <li>I can explain arithmetic patterns using properties of operations.</li> </ul>	<b>Content Elaborations</b>  <b>Standards of Mathematical Practice</b> <b><i>Mathematically proficient students:</i></b> <ol style="list-style-type: none"> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> <li>Model with mathematics</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b><u>Prior Knowledge From Second Grade</u></b></p> <p><b>N/A</b></p> <p><b><u>Advances to Fourth Grade</u></b></p> <p><b><i>Use the four operations with whole numbers to solve problems.</i></b></p> <ol style="list-style-type: none"> <li>Interpret a multiplication equation as a comparison; e.g., interpret <math>35 = 5 \times 7</math> as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.</li> <li>Multiply or divide to solve word problems involving multiplicative comparison; e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</li> <li>Solve multistep word problems posed with whole numbers and having</li> </ol>



	<p>whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.</p> <p><b>Generate and analyze patterns.</b></p> <p>5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i></p>
<p><b>Content Vocabulary</b></p> <ul style="list-style-type: none"> <li>• order of operations</li> <li>• estimation</li> <li>• rounding</li> <li>• arithmetic pattern</li> </ul>	<p><b>Academic Vocabulary</b></p> <ul style="list-style-type: none"> <li>• solve</li> <li>• identify</li> </ul>
<p><b>Formative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<p><b>Summative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>
<p><b>Resources</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<p><b>Enrichment Strategies</b></p>
<p><b>Integrations</b></p>	<p><b>Intervention Strategies</b></p>

## Grade Three Mathematics

Domain	Number and Operations in Base Ten	
Cluster	Use place value understanding and properties of operations to perform multi-digit arithmetic.	<b>Pacing</b>  Quarter 1: Modules 1-3 Quarter 2: Modules 4-6 Quarter 3: Modules 7-9 Quarter 4: Modules 10-12
Standards	<p>1. Use place value understanding to round whole numbers to the nearest 10 or 100.</p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"><li>I can round whole numbers to the nearest 10.</li><li>I can round whole numbers to the nearest 100.</li></ul> <p>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.</p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"><li>I can add within 1000 with ease by using an algorithm or strategy based on place value.</li><li>I can subtract within 1000 with ease by using an algorithm or strategy based on place value.</li><li>I can use other strategies for addition and subtracting within 1000 with ease.</li></ul> <p>3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.</p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"><li>I can multiply one-digit numbers by 10.</li><li>I can multiply one-digit numbers by multiples of 10 using strategies based on place value and operation properties.</li></ul>	<b>Content Elaborations</b>  <b>Standards of Mathematical Practice</b>  <b>Mathematically proficient students:</b> <ol style="list-style-type: none"><li>Make sense of problems and persevere in solving them.</li><li>Reason abstractly and quantitatively.</li><li>Construct viable arguments and critique the reasoning of others.</li><li>Model with mathematics</li><li>Use appropriate tools strategically.</li><li>Attend to precision.</li><li>Look for and make use of structure.</li><li>Look for and express regularity in repeated reasoning.</li></ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b><u>Prior Knowledge From Second Grade</u></b></p> <p><b>Understand place value.</b></p> <ol style="list-style-type: none"><li>Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:<ol style="list-style-type: none"><li>100 can be thought of as a bundle of ten tens – called a “hundred.”</li><li>The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</li></ol></li><li>Count within 1000; skip-count by 5s, 10s, and 100s.</li><li>Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</li><li>Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using &gt;, =, and &lt; symbols to record the results of</li></ol>

	<p>comparisons. Use place value understanding and properties of operations to add and subtract.</p> <ol style="list-style-type: none"> <li>5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</li> <li>6. Add up to four two-digit numbers using strategies based on place value and properties of operations.</li> <li>7. Add and subtract within 1000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose and decompose tens or hundreds.</li> <li>8. Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.</li> <li>9. Explain why addition and subtraction strategies work, using place value and the properties of operations.</li> </ol> <p><b><u>Advances to Fourth Grade</u></b></p> <p><b><i>Generalize place value understanding for multi-digit whole numbers.</i></b></p> <ol style="list-style-type: none"> <li>1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. <i>For example, recognize that <math>700 \div 70 = 10</math> by applying concepts of place value and division.</i></li> <li>2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</li> <li>3. Use place value understanding to round multi-digit whole numbers to any place. Use place value understanding and properties of operations to perform multi-digit arithmetic.</li> <li>4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.</li> <li>5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</li> </ol>
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	6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
<b>Content Vocabulary</b> <ul style="list-style-type: none"> <li>• place value</li> <li>• rounding</li> <li>• algorithm</li> <li>• multiply</li> </ul>	<b>Academic Vocabulary</b>
<b>Formative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<b>Summative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>
<b>Resources</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<b>Enrichment Strategies</b>
<b>Integrations</b>	<b>Intervention Strategies</b>

## Grade Three Mathematics

<p><b>Domain</b>    <i>Number and Operations – Fractions</i></p> <p><b>Cluster</b>    <i>Develop understanding of fractions as numbers.</i></p>	<p><b>Pacing</b></p> <p><b>Quarter 1:</b> Stepping Stones Modules 1, 2, 3  <b>Quarter 2:</b> Stepping Stones Modules 4, 5, 6  <b>Quarter 3:</b> Stepping Stones Modules 7, 8, 9  <b>Quarter 4:</b> Stepping Stones Modules 10, 11, 12</p>
<p><b>Standards</b></p> <p><b>1. Understand a fraction <math>1/b</math> as the quantity formed by 1 part when a whole is partitioned into <math>b</math> equal parts; understand a fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math>.</b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can work with fractions that have denominators of 2, 3, 4, 6, and 8.</li> <li>I can explain any unit fraction as one part of a whole.</li> <li>I can explain any fraction as the numerator being the number of parts and the denominator as the total number of equal parts in the whole.</li> </ul> <p><b>2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.</b></p> <p>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.</p> <p>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.</p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can explain and show how the fraction <math>1/b</math> can be represented on a number line as a number that is located a distance of <math>1/b</math> to the right of zero.</li> <li>I can explain and show how the fraction <math>1/b</math> can be represented on a number line as the size of each of the parts when a whole is partitioned into <math>b</math> equal parts.</li> <li>I can explain and show how the fraction <math>a/b</math> can be represented on a</li> </ul>	<p><b>Content Elaborations</b></p> <p><b>Standards of Mathematical Practice</b></p> <p><b>Mathematically proficient students:</b></p> <ol style="list-style-type: none"> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> <li>Model with mathematics</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b>Prior Knowledge From Second Grade</b></p> <ol style="list-style-type: none"> <li>Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.</li> </ol> <p><b>Advances to Fourth Grade</b></p> <p><b>Extend understanding of fraction equivalence and ordering.</b></p> <ol style="list-style-type: none"> <li>Explain why a fraction <math>a/b</math> is equivalent to a fraction <math>(n \times a)/(n \times b)</math> by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</li> <li>Compare two fractions with different numerators and different</li> </ol>

number line as a number that is located a distance of  $a/b$  to the right of zero.

- I can explain and show how the fraction  $a/b$  can be represented on a number line as the size of a parts when a whole is partitioned into  $b$  equal parts.
- I can represent a unit fraction ( $1/b$ ) on a number line between 0 and 1.
- I can represent any fraction ( $a/b$ ) on a number line.

**3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.**

- Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line.
- Recognize and generate simple equivalent fractions; e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ . Explain why the fractions are equivalent; e.g., by using a visual fraction model.
- Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.  
*Examples: Express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*
- 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  $>$ ,  $=$ , or  $<$ , and justify the conclusions; e.g., by using a visual fraction model.

**Learning Targets:**

- I can use models to show and explain equivalent fractions.
- I can locate equivalent fractions on a number line.
- I can use models to show and explain whole numbers as fractions.
- I can locate whole numbers as fractions on a number line.
- I can use models to compare two fractions and record the comparison using  $>$ ,  $<$ , and  $=$ .
- I can explain how the size of equal parts can be used to compare two fractions with the same numerator.
- I can explain how the number of equal parts can be used to compare two fractions with the same denominator.

denominators; e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as  $1/2$ . Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions; e.g., by using a visual fraction model. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

- Understand a fraction  $a/b$  with  $a > 1$  as a sum of fractions  $1/b$ .
  - Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
  - Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions; e.g., by using a visual fraction model.  
*Examples:  $3/8 = 1/8 + 1/8 + 1/8$ ;  $3/8 = 1/8 + 2/8$ ;  $2 \frac{1}{8} = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$ .*
  - Add and subtract mixed numbers with like denominators; e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
  - Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators; e.g., by using visual fraction models and equations to represent the problem.
- Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
  - Understand a fraction  $a/b$  as a multiple of  $1/b$ .  
*For example, use a visual fraction model to represent  $5/4$  as the product  $5 \times (1/4)$ , recording the conclusion by the equation  $5/4 = 5 \times (1/4)$ .*
  - Understand a multiple of  $a/b$  as a multiple of  $1/b$ , and use this understanding to multiply a fraction by a whole number.  
*For example, use a visual fraction model to express  $3 \times (2/5)$  as  $6 \times (1/5)$ , recognizing this product as  $6/5$ . (In general,  $n \times (a/b) = (n \times a)/b$ .)*
  - Solve word problems involving multiplication of a fraction by a whole number; e.g., by using visual fraction models and equations to represent the problem.  
*For example, if each person at a party will eat  $3/8$  of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast*

	<i>beef will be needed? Between what two whole numbers does your answer lie?</i>
<b>Content Vocabulary</b> <ul style="list-style-type: none"> <li>• fraction</li> <li>• unit fraction</li> <li>• numerator</li> <li>• denominator</li> <li>• number line</li> <li>• equivalent</li> </ul>	<b>Academic Vocabulary</b> <ul style="list-style-type: none"> <li>• recognize</li> </ul>
<b>Formative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<b>Summative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>
<b>Resources</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<b>Enrichment Strategies</b>
<b>Integrations</b>	<b>Intervention Strategies</b>

## Grade Three Mathematics

Domain	<i>Measurement and Data</i>	
Cluster	<i>Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.</i>	<p><b>Pacing</b></p> <p><b>Quarter 1:</b> Modules 1-3  <b>Quarter 2:</b> Modules 4-6  <b>Quarter 3:</b> Modules 7-9  <b>Quarter 4:</b> Modules 10-12</p>
Standards	<p><b>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.</b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can say and write time to the nearest minute.</li> <li>I can measure duration of time in minutes.</li> <li>I can solve addition and subtraction word problems involving durations of time measured in minutes.</li> </ul> <p><b>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.</b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can estimate liquid volumes using standard units of measure (liters).</li> <li>I can estimate masses of objects using standard units of measure (grams and kilograms).</li> <li>I can use a drawing to represent one-step word problems involving masses or volumes.</li> <li>I can solve one-step word problems involving masses or volumes using addition and subtraction.</li> <li>I can solve one-step word problems involving masses or volumes using multiplication and division.</li> </ul>	<p><b>Content Elaborations</b></p> <p><b>Standards of Mathematical Practice</b></p> <p><b>Mathematically proficient students:</b></p> <ol style="list-style-type: none"> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> <li>Model with mathematics</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b>Prior Knowledge From Second Grade</b></p> <p><b>Measure and estimate lengths in standard units.</b></p> <ol style="list-style-type: none"> <li>Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</li> <li>Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</li> <li>Estimate lengths using units of inches, feet, centimeters, and meters.</li> <li>Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</li> </ol> <p><b>Advances to Fifth Grade</b></p> <p><b>Convert like measurement units within a given measurement system.</b></p> <ol style="list-style-type: none"> <li>Convert among different-sized standard measurement units within a given</li> </ol>



	measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multistep, real world problems.
<b>Content Vocabulary</b> <ul style="list-style-type: none"> <li>minute</li> <li>number line</li> </ul>	<b>Academic Vocabulary</b> <ul style="list-style-type: none"> <li>estimate</li> </ul>
<b>Formative Assessments</b> <ul style="list-style-type: none"> <li>Stepping Stones performance tasks, interviews, pretests</li> </ul>	<b>Summative Assessments</b> <ul style="list-style-type: none"> <li>Stepping Stones</li> <li>PARCC</li> </ul>
<b>Resources</b> <ul style="list-style-type: none"> <li>Stepping Stones</li> </ul>	<b>Enrichment Strategies</b>
<b>Integrations</b>	<b>Intervention Strategies</b>

## Grade Three Mathematics

<p><b>Domain</b>    <i>Measurement and Data</i></p> <p><b>Cluster</b>    <i>Represent and interpret data.</i></p>	<p><b>Pacing</b></p> <p><b>Quarter 1:</b> Modules 1-3  <b>Quarter 2:</b> Modules 4-6  <b>Quarter 3:</b> Modules 7-9  <b>Quarter 4:</b> Modules 10-12</p>
<p><b>Standards</b></p> <p><b>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.</b>  <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>• I can estimate liquid volumes using standard units of measure (liters).</li> <li>• I can estimate masses of objects using standard units of measure (grams and kilograms).</li> <li>• I can use a drawing to represent one-step word problems involving masses or volumes.</li> <li>• I can solve one-step word problems involving masses or volumes using addition and subtraction.</li> <li>• I can solve one-step word problems involving masses or volumes using multiplication and division.</li> </ul> <p><b>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.</b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>• I can make a scaled picture graph with several categories to represent data.</li> <li>• I can make a scaled bar graph with several categories to represent data.</li> <li>• I can read and interpret scaled bar graphs in order to solve one- and</li> </ul>	<p><b>Content Elaborations</b></p> <p><b>Standards of Mathematical Practice</b></p> <p><b>Mathematically proficient students:</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b><u>Prior Knowledge From Second Grade</u></b></p> <p><b>Represent and interpret data.</b></p> <ol style="list-style-type: none"> <li>9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot where the horizontal scale is marked off in whole-number units.</li> <li>10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph.</li> </ol> <p><b><u>Advances to Fifth Grade</u></b></p> <p><b>Represent and interpret data.</b></p> <ol style="list-style-type: none"> <li>4. Make a line plot to display a data set of measurements in fractions of a unit (<math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math>). Solve problems involving addition and subtraction of</li> </ol>

<p>two-step “how many more” and “how many less” problems.</p> <ul style="list-style-type: none"> <li>• I can read and interpret scaled bar graphs in order to solve one- and two-step “how many more” and “how many less” problems.</li> </ul>	<p>fractions by using information presented in line plots.</p> <p><i>For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</i></p>
<p><b>Content Vocabulary</b></p> <ul style="list-style-type: none"> <li>• scaled picture graph</li> <li>• scaled bar graph</li> <li>• scale</li> <li>• half or halves</li> <li>• quarter</li> <li>• fourth</li> <li>• line plot</li> </ul>	<p><b>Academic Vocabulary</b></p> <ul style="list-style-type: none"> <li>• draw</li> <li>• read</li> <li>• estimate</li> <li>• interpret</li> </ul>
<p><b>Formative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<p><b>Summative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>
<p><b>Resources</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<p><b>Enrichment Strategies</b></p>
<p><b>Integrations</b></p>	<p><b>Intervention Strategies</b></p>

## Grade Three Mathematics

Domain	<i>Measurement and Data</i>	
Cluster	<i>Geometric measurement: Understand concepts of area and relate area to multiplication and to addition.</i>	<p><b>Pacing</b></p> <p><b>Quarter 1:</b> Stepping Stones Modules 1,2, 3  <b>Quarter 2:</b> Stepping Stones Modules 4, 5, 6  <b>Quarter 3:</b> Stepping Stones Modules 7, 8, 9  <b>Quarter 4:</b> Stepping Stones Modules 10, 11, 12</p>
Standards	<p><b>5. Recognize area as an attribute of plane figures and understand concepts of area measurement.</b></p> <p>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.</p> <p>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.</p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can define a unit square.</li> <li>I can define area as the measure of space with a plane figure and explain why area is measured in square units.</li> </ul> <p><b>6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).</b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can measure the area of a shape or flat surface by covering it with unit squares – with no gaps or overlaps – and counting the number of unit squares used.</li> </ul> <p><b>7. Relate area to the operations of multiplication and addition.</b></p> <p>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.</p> <p>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.</p>	<p><b>Content Elaborations</b></p> <p><b>Standards of Mathematical Practice</b></p> <p><b>Mathematically proficient students:</b></p> <ol style="list-style-type: none"> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> <li>Model with mathematics</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b>Prior Knowledge From Second Grade</b></p> <p><b>N/A</b></p> <p><b>Advances to Fourth Grade</b></p> <p><b>Geometric measurement: Understand concepts of angle and measure angles.</b></p> <p>5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:</p> <p>a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through <math>\frac{1}{360}</math> of a circle is called a “one-degree angle,” and can be used to measure angles.</p> <p>b. An angle that turns through <math>n</math> one-degree angles is said to have an</p>

<p>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.</p> <p>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.</p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>• I can use tiles to find the area of rectangles.</li> <li>• I can explain the relationship between tiling and multiplying side lengths to find the area of rectangles.</li> <li>• I can multiply adjacent side lengths of rectangles to solve word problems.</li> <li>• I can use area models to explain the distributive property.</li> <li>• I can decompose an irregular figure into non-overlapping rectangles.</li> <li>• I can explain area as additive and use this understanding to solve word problems.</li> </ul>	<p>angle measure of <math>n</math> degrees.</p> <p>6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.</p> <p>7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems; e.g., by using an equation with a symbol for the unknown angle measure.</p>
<p><b>Content Vocabulary</b></p> <ul style="list-style-type: none"> <li>• area</li> <li>• plane figure</li> <li>• unit square</li> <li>• area model</li> <li>• distributive property</li> <li>• additive</li> </ul>	<p><b>Academic Vocabulary</b></p> <ul style="list-style-type: none"> <li>• attribute</li> <li>• decompose</li> </ul>
<p><b>Formative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<p><b>Summative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>
<p><b>Resources</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<p><b>Enrichment Strategies</b></p>
<p><b>Integrations</b></p>	<p><b>Intervention Strategies</b></p>

## Grade Three Mathematics

Domain	<b>Measurement and Data</b>	
Cluster	<b>Geometric measurement: Recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.</b>	<p><b>Pacing</b></p> <p><b>Quarter 1:</b> Stepping Stones Modules 1,2, 3  <b>Quarter 2:</b> Stepping Stones Modules 4, 5, 6  <b>Quarter 3:</b> Stepping Stones Modules 7, 8, 9  <b>Quarter 4:</b> Stepping Stones Modules 10, 11, 12</p>
Standards	<p><b>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.</b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>• I can define perimeter.</li> <li>• I can find the perimeter of polygons when given the length of polygons when given the perimeter.</li> <li>• I can show how rectangles with the same perimeter can have different areas.</li> <li>• I can show how rectangles with the same area can have different perimeters.</li> <li>• I can solve word problems involving perimeters.</li> </ul>	<p><b>Content Elaborations</b></p> <p><b>Standards of Mathematical Practice</b></p> <p><b>Mathematically proficient students:</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b>Prior Knowledge From Second Grade</b></p> <p><b>Measure and estimate lengths in standard units.</b></p> <ol style="list-style-type: none"> <li>1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</li> <li>2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</li> <li>3. Estimate lengths using units of inches, feet, centimeters, and meters.</li> <li>4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</li> </ol> <p><b>Advances to Fourth Grade</b></p> <p><b>Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</b></p>

	<ol style="list-style-type: none"> <li>1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz;; l ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</li> <li>2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.</li> <li>3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. <i>For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.</i></li> </ol>
<b>Content Vocabulary</b> <ul style="list-style-type: none"> <li>• perimeter</li> <li>• area</li> </ul>	<b>Academic Vocabulary</b> <ul style="list-style-type: none"> <li>• attribute</li> <li>• solve</li> </ul>
<b>Formative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<b>Summative Assessments</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>
<b>Resources</b> <ul style="list-style-type: none"> <li>• Stepping Stones</li> </ul>	<b>Enrichment Strategies</b>
<b>Integrations</b>	<b>Intervention Strategies</b>

## Grade Three Mathematics

Domain	Geometry
Cluster	<i>Reason with shapes and their attributes.</i>
	<p><b>Pacing</b></p> <p><b>Quarter 1:</b> Stepping Stones Modules 1,2, 3  <b>Quarter 2:</b> Stepping Stones Modules 4, 5, 6  <b>Quarter 3:</b> Stepping Stones Modules 7, 8, 9  <b>Quarter 4:</b> Stepping Stones Modules 10, 11, 12</p>
Standards	Content Elaborations
<p><b>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.</b></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can use attributes to identify shapes.</li> <li>I can use attributes to classify shapes into categories.</li> <li>I can define quadrilaterals.</li> <li>I can recognize rhombuses, rectangles, and squares as being examples of quadrilaterals.</li> <li>I can draw quadrilaterals other than rhombuses, rectangles, and squares.</li> </ul> <p><b>2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</b>  <i>For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.</i></p> <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>I can partition (divide) shapes into equal parts with equal areas.</li> <li>I can explain any fraction (1/b) as one part of a whole divided into b equal parts.</li> </ul>	<p><b>Standards of Mathematical Practice</b></p> <p><b>Mathematically proficient students:</b></p> <ol style="list-style-type: none"> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> <li>Model with mathematics</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ol> <p><b>From the K-8 Math Standards Progression.</b></p> <p><b><u>Prior Knowledge From Second Grade</u></b></p> <p><b><i>Reason with shapes and their attributes.</i></b></p> <ol style="list-style-type: none"> <li>Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</li> <li>Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</li> <li>Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.</li> </ol>



	<p><b><u>Advances to Fifth Grade</u></b></p> <p><b><i>Graph points on the coordinate plane to solve real-world and mathematical problems.</i></b></p> <ol style="list-style-type: none"> <li>1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).</li> <li>2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. Classify two-dimensional figures into categories based on their properties.</li> <li>3. Understand that attributes belonging to a category of two dimensional figures also belong to all subcategories of that category. <i>For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</i></li> <li>4. Classify two-dimensional figures in a hierarchy based on properties.</li> </ol>
<p><b>Content Vocabulary</b></p> <ul style="list-style-type: none"> <li>• attribute</li> <li>• quadrilateral</li> <li>• rectangle</li> <li>• rhombus</li> <li>• square</li> <li>• parallelogram</li> <li>• kite</li> <li>• area</li> <li>• unit fraction</li> </ul>	<p><b>Academic Vocabulary</b></p> <ul style="list-style-type: none"> <li>• partition</li> </ul>
<p><b>Formative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones performance tasks, interviews, pretests</li> </ul>	<p><b>Summative Assessments</b></p> <ul style="list-style-type: none"> <li>• Stepping Stones</li> <li>• PARCC</li> </ul>

<b>Resources</b> <ul style="list-style-type: none"><li>• Stepping Stones</li></ul>	<b>Enrichment Strategies</b>
<b>Integrations</b>	<b>Intervention Strategies</b>