

**Curriculum Map**  
**Grade 3**  
**General Math**

Unit	Essential Question	Content	Skills	Assessment	Standards
Unit 1  5-7 Weeks	<p>How does knowing basic multiplication facts help you to solve division problems and multiply with multiples of 10?</p> <p>What is multiplication? division? addition? subtraction?</p> <p>What strategies can be used when adding and subtracting?</p> <p>When is the appropriate time to use each operation?</p> <p>When might you need to round numbers, and when might you need to solve for an exact answer?</p> <p>How can area be determined?</p>	<p><i>Students will understand that...</i></p> <p>...products of whole numbers can be interpreted as repeated addition or equal groups of objects.</p> <p>...division is a set of objects partitioned equally into a number of shares.</p> <p>...the unknown in a division problem can be solved using known multiplication facts.</p> <p>...whole numbers can be rounded to the nearest 10 or 100.</p> <p>...that regrouping/trading may be necessary when adding or subtracting 2 digit whole numbers.</p> <p>...that basic multiplication facts can be used when solving problems with multiples of 10.</p>	<p>Create a multiplication sentence when given a repeated addition sentence.</p> <p>Create an addition sentence when given a multiplication sentence.</p> <p>Create an array or a pictorial representation of a multiplication sentence.</p> <p>Create a multiplication sentence from an array or pictorial representation.</p> <p>Solve division problems involving equal grouping and equal sharing.</p> <p>Know how to use multiplication facts to solve for an unknown number in a division sentence (and division facts for a multiplication sentence).</p> <p>Round to the nearest 10 and 100.</p>	<p>Fist-to-Five/Thumbs Up or Down/Etc.</p> <p>Games/Activities</p> <p>Practice Pages</p> <p>Slate Drills</p> <p>Teacher Observation</p> <p>Quiz</p> <p>Teacher-Made Test</p> <p>State Model Assessment</p> <p>Renaissance Learning STAR Math</p> <p>Accelerated Math Program</p> <p>Reflex Math Online Program</p>	<p>3.OA.1</p> <p>3.OA.2</p> <p>3.OA.4</p> <p>3.OA.7</p> <p>3.NBT.1</p> <p>3.NBT.2</p> <p>3.NBT.3</p> <p>3.MD.6</p> <p>3.MD.7a</p> <p>3.MD.7b</p>

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		<p>...the value of a digit depends on its place in the number.</p> <p>...area is represented by square units.</p> <p><i>Students will know...</i></p> <p>...easier multiplication facts (0, 1, 2, 5, and 10).</p> <p>...an array represents equal grouping of sets of objects.</p> <p>...a set of objects can be divided into an equal number of groups and/or groups containing an equal of objects.</p> <p>...that a fact family uses 3 numbers to create 2 multiplication and 2 division sentences.</p> <p>...that numbers can be rounded to the nearest 10 or 100.</p>	<p>Determine the area of a rectangular array by either counting square units or multiplying side lengths.</p>		

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		<p>...strategies and algorithms for adding and subtracting within 1,000.</p> <p>...strategies for multiplying one-digit numbers by multiples of 10.</p> <p>...place value names.</p> <p>...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>...a plane figure can be covered without gaps or overlaps by <math>n</math> squares is said to have an area of <math>n</math> square units.</p> <p>...the area of a rectangular array can be found by multiplying side lengths.</p>			
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Unit 2  5-7 Weeks	<p>What are the commutative, associative, and distributive properties?</p> <p>What strategies can be used when multiplying?</p> <p>What strategies can be used to determine the area of a rectangle?</p>	<p><i>Students will understand that...</i></p> <p>...the commutative, associative, and distributive properties can be used as strategies to add and multiply whole numbers.</p> <p>...the unknown in a division problem can be solved using know multiplication facts.</p> <p>...there are multiple strategies that can be used to solve multiplication problems.</p> <p>...the space within a rectangle is called the area and is measured in square units.</p> <p>...a rectangle can be broken into smaller rectangular sections, and the area of the large rectangle will equal the sum of the areas of the smaller rectangles.</p>	<p>Use the commutative, associative, and distributive properties to solve multiplication and addition problems.</p> <p>Solve problems involving parentheses.</p> <p>Solve division of whole numbers by representing the problem as an unknown factor problem.</p> <p>Multiply and divide within 40 using strategies such as the relationship between multiplication and division.</p> <p>Use multiplication with 10 to solve word problems by creating drawings or arrays.</p> <p>Write equations to represent equal groups or arrays.</p>	<p>Fist-to-Five/Thumbs Up or Down/Etc.</p> <p>Games/Activities</p> <p>Practice Pages</p> <p>Slate Drills</p> <p>Teacher Observation</p> <p>Quiz</p> <p>Teacher-Made Test</p> <p>State Model Assessment</p> <p>Renaissance Learning STAR Math</p> <p>Accelerated Math Program</p> <p>Reflex Math Online Program</p>	<p>3.OA.3</p> <p>3.OA.5</p> <p>3.OA.6</p> <p>3.OA.7</p> <p>3.OA.9</p> <p>3.MD.6</p> <p>3.MD.7c</p> <p>3.MD.7d</p>

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**Grade 3**  
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		<p><i>Students will know...</i></p> <p>...changing the order of the addends or factors does not change the sum or product. (commutative property)</p> <p>...that when adding or multiplying 3 or more numbers the way that they are grouped does not affect the sum or product. (associative property)</p> <p>...a product can be made by using the partial products algorithm. (distributive property)</p> <p>...that multiplication strategies include creating drawings or arrays, using the relationship between multiplication and division, repeated addition, and multiplication tables.</p> <p>...multiplication facts where 3 or 4 is one of the factors.</p>	<p>Explain patterns in addition or multiplication tables using the properties of operations.</p> <p>Determine the area of a rectangular array by either counting square units or multiplying side lengths.</p> <p>Separate a large rectangle into smaller rectangles, find the area of each part, and then add to determine the total area.</p>		

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		<p>...area of a rectangular array can be found by counting square units.</p> <p>...the area of a rectangular array can be found by multiplying side lengths.</p>			

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Unit 3  5-7 Weeks	<p>How can fractions be represented?</p> <p>What strategies can be used when multiplying?</p> <p>What units are used for the various types of measurement?</p> <p>When is the appropriate time to use each operation?</p>	<p><i>Students will understand that...</i></p> <p>...time is a unit of measurement.</p> <p>...measurement should be done with appropriate and in appropriate units.</p> <p>...fractions can represent parts of a set or parts of a whole.</p> <p>...a letter may be used to represent an unknown value.</p> <p>...errors can be detected if you assess the reasonableness of the answer.</p> <p>...some word problems require more than one step to solve.</p> <p><i>Students will know...</i></p> <p>...which tools to use for which measurement task.</p>	<p>Tell time to the nearest minute.</p> <p>Calculate elapsed time.</p> <p>Compare liquid volumes and masses using appropriate units.</p> <p>Write fractions that represent part(s) of a set and part(s) of a whole.</p> <p>Make a drawing of a number line with fractional sections marked.</p> <p>Fluently multiply and divide within 50, using strategies such as the relationship between multiplication and division.</p> <p>Find the value of an unknown (expressed as a letter) in an equation.</p>	<p>Fist-to-Five/Thumbs Up or Down/Etc.</p> <p>Games/Activities</p> <p>Practice Pages</p> <p>Slate Drills</p> <p>Teacher Observation</p> <p>Quiz</p> <p>Teacher-Made Test</p> <p>State Model Assessment</p> <p>Renaissance Learning STAR Math</p> <p>Accelerated Math Program</p> <p>Reflex Math Online Program</p>	<p>3.MD.1</p> <p>3.MD.2</p> <p>3.NF.1</p> <p>3.NF.2</p> <p>3.G.2</p> <p>3.OA.7</p> <p>3.OA.8</p>

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**Grade 3**  
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		<p>...the denominator represents the number of equal parts it takes to make a whole region or set.</p> <p>...the numerator represents the number of parts of the whole or set that are being referenced.</p> <p>...on a number line the spaces between the whole numbers can be represented as fractions.</p> <p>...multiplication facts where 6 or 7 is one of the factors.</p>	<p>Solve two step word problems.</p> <p>Assess the reasonableness of the answer.</p>		

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**Grade 3**  
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Unit 4 5-7 Weeks **Note: According to June 2014 revisions to the NJDOE Model Curriculum, the graphing SLOs have been deleted. However the <u>standards still</u> appear in Unit 5 and on PARCC Evidence Tables.	What strategies can be used when multiplying?  What are some visual representations that make it easier to understand data?  What do fractions represent and how can they be compared?  How can area be determined?	<i>Students will understand that...</i>  ...two fractions as equivalent (equal) if they are the same size, or the same point on a number line.  ...whole numbers can be expressed as fractions.  ...data can be represented visually. (line plot, bar graph, etc.)  ...comparisons are valid only when the two fractions refer to the same whole.  ...area is represented by square units.  <i>Students will know...</i>  ...multiplication facts when 8 or 9 is one of the factors.	Fluently multiply and divide within 80 using strategies such as the relationship between multiplication and division.  Compare fractions.  Read a fractional number line.  Recognize and generate simple equivalent fractions.  Explain why fractions are equivalent or not equivalent using visual fraction models.  Compare two fractions with the same numerator or the same denominator by reasoning about their size.  Record the results of comparisons with the symbols $>$ , $=$ , and $<$ .	Fist-to-Five/Thumbs Up or Down/Etc.  Games/Activities  Practice Pages  Slate Drills  Teacher Observation  Quiz  Teacher-Made Test  State Model Assessment  Renaissance Learning STAR Math  Accelerated Math Program  Reflex Math Online Program	3.NF.3a  3.NF.3b  3.NF.3c  3.NF.3d  3.MD.3  3.MD.4  3.MD.5a  3.OA.7

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		<p>...simple equivalent fractions. (ex. <math>\frac{1}{2} = \frac{2}{4}</math>)</p> <p>...<math>a/1 = a</math> as a whole number.</p> <p>...that <math>a/a = 1</math>.</p> <p>...the meaning of the symbols <math>&gt;</math>, <math>&lt;</math>, and <math>=</math>.</p> <p>...where halves and fourths are on a ruler.</p> <p>...that measuring to the nearest half inch or quarter inch includes the whole number.</p> <p>...that each x on a line plot represents one unit of data.</p> <p>...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>...a plane figure can be covered without gaps or overlaps by n squares is said to have an area of n square units.</p>	<p>Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories.</p> <p>Solve one and two step "how many more" and "how many less" problems using information presented in scaled bar graphs.</p> <p>Measure to the nearest half and nearest quarter inch.</p> <p>Make a line plot.</p> <p>Find the area of a rectangle in square units.</p>		

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Unit 5  5-7 Weeks	<p>What strategies can be used when multiplying?</p> <p>What strategies can be used when adding and subtracting?</p> <p>How can knowing attributes of shapes help you when calculating area and perimeter?</p> <p>When would you need to calculate perimeter? Area?</p>	<p><i>Students will understand that...</i></p> <p>...shapes in different categories may share attributes, and that the shared attributes can define a larger category.</p> <p>...area is represented in square units.</p> <p>...multiplication and addition strategies for calculating area allow you to arrive at the same answer.</p> <p>...that you can find the area of a large rectangle by dividing it into 2 smaller rectangles.</p> <p>...perimeter is a linear measurement.</p> <p>...rectangles can have the same perimeter but different areas.</p> <p>...rectangles can have the same area but different perimeters.</p>	<p>Categorize shapes based on their attributes.</p> <p>Give examples of quadrilaterals.</p> <p>Draw examples of quadrilaterals that are not rhombuses, rectangles, or squares.</p> <p>Find the area of rectangles by tiling.</p> <p>Find the area of a rectangle by multiplying length x width.</p> <p>Apply area concepts to real world situations.</p> <p>Separate a large rectangle into smaller rectangles, find the area of each part, and then add to determine the total area.</p>	<p>Fist-to-Five/Thumbs Up or Down/Etc.</p> <p>Games/Activities</p> <p>Practice Pages</p> <p>Slate Drills</p> <p>Teacher Observation</p> <p>Quiz</p> <p>Teacher-Made Test</p> <p>State Model Assessment</p> <p>Renaissance Learning STAR Math</p> <p>Accelerated Math Program</p> <p>Reflex Math Online Program</p>	<p>3.G.1</p> <p>3.MD.6</p> <p>3.MD.7a</p> <p>3.MD.7b</p> <p>3.MD.7c</p> <p>3.MD.7d</p> <p>3.MD.8</p> <p>3.NBT.2</p> <p>3.OA.7</p>

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		<p>...the value of a digit depends on its place in the number.</p> <p><i>Students will know...</i></p> <p>...categories for classifying shapes. (rhombuses, rectangles, and others)</p> <p>...that quadrilateral is a 4 sided polygon.</p> <p>...rhombuses, rectangles, and squares are examples of quadrilaterals.</p> <p>...area can be calculated using multiplication (length x width) or addition (tiling) strategies.</p> <p>...distributive property can be used to find the area of a rectangle.</p>	<p>Fluently multiply and divide within 100 using strategies such as the relationship between multiplication and division.</p> <p>Calculate the perimeter of a plane figure.</p> <p>Calculate an unknown side length when given the perimeter.</p> <p>Create rectangles with same perimeter but different areas.</p> <p>Create rectangles with the same area but different perimeters.</p> <p>Fluently add and subtract within 1,000.</p> <p>Give the value of a digit based on its place in a number.</p>		

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		<p>...multiplication facts when 0 through 10 are the factors.</p> <p>...that perimeter is calculated by adding side lengths for a plane figure.</p> <p>...strategies and algorithms for adding and subtracting within 1,000.</p>			