

**Fayette County Schools  
Mathematics Learning Map**

**3<sup>rd</sup> Grade**

**1<sup>st</sup> Nine Weeks**

<b>Unit EQ</b>	How can multiplication and division help you solve real world problems?				
<b>Benchmark CSOs</b>	M.O.3.1.9 - demonstrate and model multiplication (repeated addition, arrays) and division (repeated subtraction, partitioning).	M.O.3.1.10 - use and explain the operations of multiplication and division including the properties (e.g., identity element of multiplication, commutative property, property of zero, associative property, inverse operations).	M.O.3.1.11 - recall basic multiplication facts and the corresponding division facts.	M.O.3.1.12 - model the distributive property in multiplication of 2- and 3-digit numbers by a 1-digit number.	M.O.3.1.13 - use models to demonstrate division of 2- and 3-digit numbers by a 1-digit number.
<b>Standards Based Math Unit</b>	<i>Things That Come in Groups</i>				
<b>Tech Steps</b>	<b>Project 6 – Multiplication Calculator</b>		There is not a Tech Step lesson for this CSO—refer to Ed Class (optional)		
	<a href="#">Rubric</a>				
<b>21<sup>st</sup> Century Online Resources</b>	<a href="#">I Can Statements</a>				
<b>Lesson EQ's</b>	How can you model multiplication? How can you model division?	How do you use and explain the properties of multiplication and division?	What basic multiplication and division facts can you recall? What is the relationship between multiplication facts and the corresponding division facts?	How do you model the distributive property?	How do you model division?

**Unit Vocabulary**  
Multiplication  
Division  
Facts family

Array  
Identity element of multiplication

Commutative property  
Property of Zero  
Associative property

Inverse operations  
Distributive property

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<b>Unit EQ</b>	What are the connections between flips, turns, and area?		
<b>Benchmark CSOs</b>	M.O.3.3.6 - draw an example of a flip, slide, and turn (reflection, translation, and rotation) given a model.	M.O.3.4.3 - determine the formula of the area of a rectangle and explain reasoning through modeling.	M.O.3.2.1 - analyze and extend geometric and numeric patterns.
<b>Standards Based Math Unit</b>	<i>Flips, Turns, and Area</i>		Other Resources
<b>Tech Steps</b>	There is not a Tech Step lesson for this CSO—refer to Ed Class (optional)		
<b>21<sup>st</sup> Century Online Resources</b>	<a href="#">I Can Statements</a>		
<b>Lesson EQ's</b>	In what ways can you draw a flip, slide, and turn?	How do you explain the formula of the area of a rectangle?	What strategies can you use to extend geometric patterns? What strategies can you use to extend numeric patterns?

**Unit Vocabulary**

Flip (reflection)  
Slide (translation)

Turn (rotation)  
Area

Rectangle  
Patterns

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**2<sup>nd</sup> Nine Weeks**

Unit EQ	How does measurement help you communicate to others?			
<b>Benchmark CSOs</b>	M.O.3.3.7 - name the location of a point on a first-quadrant grid, represent using ordered pairs.	M.O.3.4.1 - within a project based investigation, identify a real life situation, consider a number of variables and use appropriate measurement tools, overtime, make a hypothesis as to the change overtime; with more precision than whole units; <ul style="list-style-type: none"> <li>• length in centimeters and inches,</li> <li>• temperature in Celsius and Fahrenheit</li> <li>• weight/mass in pounds and kilograms,</li> </ul> and design and implement a method to collect, organize, and analyze data; analyze results to make a conclusion; evaluate the validity of the hypothesis upon collected data; design a mode of presentation (with and without technology).	M.O.3.5.1 - collect and organize grade-appropriate real-world data from observation, surveys, and experiments, and identify and construct appropriate ways to display data.	M.O.3.5.3 - analyze real-world data represented on a graph using grade-appropriate questions.
<b>Standards Based Math Unit</b>	<i>From Paces to Feet</i>		<i>From Paces to Feet and Other Sources</i>	
<b>Tech Steps</b>	There is not a Tech Step lesson for this CSO—refer to Ed Class (optional)		<b>Project 5 – Class Favorites</b>	
<b>21<sup>st</sup> Century Online Resources</b>	<a href="#">I Can Statements</a>			<a href="#">Rubric</a>

<b>Lesson EQ's</b>	How do you use ordered pairs to name the location on the first quadrant grid?	In what ways can data help you solve real world problems?	What strategies can you use to collect and organize data? How do you display data appropriately?	How do you analyze real world data from a graph?
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**Unit Vocabulary**

Point  
 Quadrant  
 Coordinate grid  
 Ordered pair  
 Centimeters  
 Inches

Celsius  
 Fahrenheit  
 Pounds  
 Kilograms  
 Mass  
 Weight

Temperature  
 Length  
 Data  
 Graph  
 Table of values

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**2<sup>nd</sup> Nine Weeks**

<b>Unit EQ</b>	What strategies can you use to solve real world problems involving multiplication and division?			
<b>Benchmark CSOs</b>	M.O.3.1.1 - read, write, order, and compare numbers to 10,000 using a variety of strategies (e.g., symbols, manipulatives, number line).	M.O.3.1.3 - identify place value of each digit utilizing standard and expanded form to 10,000.	M.O.3.1.4 - apply estimation skills (rounding, benchmarks, compatible numbers) to solve and evaluate reasonableness of an answer.	M.O.3.4.5 - identify, count and organize coins and bills to display a variety of price values from real-life examples with a total value of \$100 or less and model making change using manipulatives.
<b>Standards Based Math Unit</b>	<i>Landmarks in the Hundreds</i>			<i>Landmarks in the Hundreds and Other Sources</i>
<b>Tech Steps</b>	There is not a Tech Step lesson for this CSO—refer to Ed Class (optional)			
<b>21<sup>st</sup> Century Online Resources</b>	<a href="#">I Can Statements</a>			
<b>Lesson EQ's</b>	What strategies can you use to help you read, write, order, and compare numbers?	How can you determine the place value of a digit in a number?	How can estimation help you problem solve?	How can money be used in real life situations?

**Unit Vocabulary**

Place value  
Estimation

Decimals  
Tenths

Hundredths

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**3<sup>rd</sup> Grade**

**3<sup>rd</sup> Nine Weeks**

<b>Unit EQ</b>	In what ways can addition and subtraction help you problem solve?			
<b>Benchmark CSOs</b>	M.O.3.2.2 - create an input/output model using addition, subtraction, multiplication or division.	M.O.3.2.3 - analyze a given pattern and write the rule.	M.O.3.2.5 - use symbol and letter variables to represent an unknown quantity and determine the value of the variable.	M.O.3.2.4 - write equivalent numerical expressions and justify equivalency.
<b>Standards Based Math Unit</b>	<i>Up and Down the Number Line</i>			<i>Up and Down the Number Line and Other Sources</i>
<b>Tech Steps</b>	There is not a Tech Step lesson for this CSO—refer to Ed Class (optional)			
<b>21<sup>st</sup> Century Online Resources</b>	<a href="#">I Can Statements</a>			
<b>Lesson EQ's</b>	How do you create an input/output model using addition, subtraction, multiplication, and division?	How do you write a rule from a pattern?	How do you represent an unknown quantity with a symbol or letter? How do you find the value of a variable?	How do you write equivalent numerical expressions and justify equivalency?

**Unit Vocabulary**

Input/Output model  
Addition  
Subtraction  
Multiplication  
Division

Sum  
Difference  
Product  
Dividend  
Pattern

Rule  
Variable  
Expression

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**3<sup>rd</sup> Nine Weeks**

<b>Unit EQ</b>	What addition and subtraction strategies can you use to solve problems?		How do you determine the time displayed on a clock?
<b>Benchmark CSOs</b>	M.O.3.1.8 - add and subtract 2- and 3-digit whole numbers and money with and without regrouping.	M.O.3.1.14 - create grade-appropriate real-world problems involving any of the four operations using multiple strategies, explain the reasoning used, and justify the procedures selected when presenting solutions.	M.O.3.4.4 - read time to 5-minute intervals using (am and pm) analog and digital clocks, compute elapsed time to the quarter-hour using a clock.
<b>Standards Based Math Unit</b>	<i>Combining and Comparing</i>		Other Sources
<b>Tech Steps</b>	There is not a Tech Step lesson for this CSO—refer to Ed Class (optional)		
<b>21<sup>st</sup> Century Online Resources</b>	<a href="#">I Can Statements</a>		
<b>Lesson EQ's</b>	How do you add and subtract 2- and 3- digit whole numbers and money?	What real world problem can you create using addition, subtraction, multiplication, or division? How do you solve the problem and justify your answer?	How do you compute elapsed time using a clock?

**Unit Vocabulary**  
Whole numbers  
Regroup

Addition  
Subtraction

Justify  
Elapsed time

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**3<sup>rd</sup> Grade**

**3<sup>rd</sup> Nine Weeks**

<b>Unit EQ</b>	What is the relationship between perimeter and area?	How do you share something that cannot be divided into equal parts?			
<b>Benchmark CSOs</b>	M.O.3.4.2 - estimate and find the perimeter and area of familiar geometric shapes, using manipulatives, grids, or appropriate measuring tools.	M.O.3.1.2 - read, write, order, and compare decimals to hundredths, with manipulatives.	M.O.3.1.5 - demonstrate an understanding of fractions as part of a whole/one and as part of a set/group using models and pictorial representations.	M.O.3.1.6 - create concrete models and pictorial representations to <ul style="list-style-type: none"> <li>• compare and order fractions with like and unlike denominators,</li> <li>• add and subtract fractions with like denominators and verify results.</li> </ul>	M.O.3.1.7 - use concrete models and pictorial representations to demonstrate an understanding of equivalent fractions, proper and improper fractions, and mixed numbers.
<b>Standards Based Math Unit</b>	<i>Turtle Paths</i>	<i>Fair Shares</i>			
<b>Tech Steps</b>	There is not a Tech Step lesson for this CSO—refer to Ed Class (optional)				
<b>21<sup>st</sup> Century Online Resources</b>	<a href="#">I Can Statements</a>				

<p><b>Lesson EQ's</b></p>	<p>How do you estimate perimeter? How do you estimate area? How do you find perimeter of an object? How do you find area of an object?</p>	<p>How do you read decimals? How do you write decimals? How do you order decimals? How do you compare decimals?</p>	<p>How can you use models or pictures to describe fractions?</p>	<p>What models or pictures can you use to order and compare fractions? What models or pictures can you use to add and subtract fractions?</p>	<p>How can you use models or pictures to help you show equivalent fractions?</p>
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**Unit Vocabulary**

Estimate  
Perimeter

Area  
Decimals

Fractions  
Equivalent fractions

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**4<sup>th</sup> Nine Weeks**

<b>Unit EQ</b>	How are different polygons related?					
<b>Benchmark CSOs</b>	M.O.3.3.1 - identify and create new polygons by transforming, combining and decomposing polygons.	M.O.3.3.2 - identify, describe, and classify the following geometric solids according to the number of faces, edges, and vertices: <ul style="list-style-type: none"> <li>• cube</li> <li>• rectangular solid</li> <li>• cylinder</li> <li>• cone</li> <li>• pyramid</li> </ul>	M.O.3.3.3 - construct and identify a solid figure from a plane drawing.	M.O.3.3.4 - identify, describe and draw lines of symmetry in two-dimensional shapes.	M.O.3.3.5 - model, describe, and draw <ul style="list-style-type: none"> <li>• lines</li> <li>• rays</li> <li>• angles including right, obtuse, and acute angles.</li> </ul>	M.O.3.5.2 - develop and conduct grade-appropriate experiments using concrete objects (e.g. counters, number cubes, spinners) to determine the likeliness of events and list all outcomes.
<b>Standards Based Math Unit</b>	<i>Exploring Solids and Boxes</i>					Other Sources
<b>Tech Steps</b>	There is not a Tech Step lesson for this CSO—refer to Ed Class (optional)					
<b>21<sup>st</sup> Century Online Resources</b>	<a href="#">I Can Statements</a>					
<b>Lesson EQ's</b>	How can you transform, combine, and decompose	How do you classify geometric solids according to their	How do you construct a solid figure from a plane	How do you know if a two dimensional figure is	In what ways can you model, describe, and draw	In what ways can you determine the chance of an

	polygons to create new polygons?	faces, edges, and vertices?	drawing? How do you identify a solid figure from a plane drawing?	symmetrical?	lines, rays, and angles?	event occurring?
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**Unit Vocabulary**

Polygons  
 Geometric solid  
 Faces  
 Edges  
 Vertices  
 Cube  
 Rectangular prism  
 Cylinder  
 Cone  
 Pyramid  
 Two-dimensional  
 Symmetry  
 Lines  
 Rays  
 Angles  
 Right angle  
 Acute angle  
 Obtuse angle  
 Event  
 Outcome