

Carson City School District  
Carson City, Nevada

## Grade 6 Math Curriculum Map

### KEY TO PRIORITY FRAMEWORK AND ASSESSMENT LEVEL

**E = Enduring.** Complex, engaging, “big ideas”, will require more in-depth knowledge.

**I = Important to know and do.** Students should retain detailed but not extensive knowledge.

**W = Worth being familiar with.** Students should have awareness of key people, ideas, concepts, and terms.

**L = Nevada Academic Standards that are assessable at the local level ONLY.**

**S = Nevada Academic Standards that are assessable at the state and local levels.**

As an example the letters E/L would indicate that the standard requires enduring knowledge and will only be assessed at the local level.

### KEY TO INTERDISCIPLINARY LINKS

C = Civics   E = English Language Arts   Ec = Economics   G = Geography  
H = History   M = Mathematics   S = Science   He = Health

### RESOURCE KEY

GMH = Glencoe/McGraw-Hill (Mathematics – Applications and Connections)

VM = Visual Math

**Content Organization: The Process Standards 6.0 – 9.0 (problem solving and mathematical communication/reasoning/connection standards) are to be introduced and reinforced throughout the year.**

**Content Standard 1.0: Number Sense/Computation** – *Students will accurately calculate and use estimation techniques, number relationships, operation rules and algorithm; they will determine the reasonableness of answers and the accuracy of solutions.*

**Content Standard 2.0: Patterns/Algebraic Thinking** – *Students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs of patterns, functions, and algebraic relations as modeled in practical situations.*

**Content Standard 3.0: Measurement** – *Students will use appropriate tools and techniques of measurement to determine, estimate, record and verify direct and indirect measurements.*

**Content Standard 4.0: Geometry** – *Students will identify, represent, verify and apply spatial relationships and geometric properties.*

**Content Standard 5.0: Data Analysis/Statistics** – *Students will collect, organize, display, interpret and analyze data to determine statistical relationships and probability projections.*

**Process Standard 6.0: Problem Solving** – *Students will develop their ability to solve problems by engaging in developmentally appropriate problem solving opportunities in which there is a need to use various approaches to investigate and understand mathematical concepts in order to formulate their own problems; find solutions to problems from everyday situations; develop and apply strategies to solve a wide variety of problems; and integrate mathematical reasoning, communication and connections.*

**Process Standard 7.0: Mathematical Communication/Reasoning/Connections** – *Students will develop their ability to communicate mathematically by solving problems in which there is a need to obtain information from the real world through reading, listening, and observing in order to transfer this information into a mathematical language and symbols; process this information mathematically; and present results in written, oral and visual formats.*

**Process Standard 8.0: Mathematical Reasoning** - *Students will develop their ability to reason mathematically by solving problems in which there is a need to investigate significant mathematical ideas and construct their own learning in all content areas in order to justify their thinking; reinforce their logical reasoning abilities; reflect on and clarify their own thinking; and ask questions to extend their thinking.*

**Process Standard 9.0: Mathematical Connections** - *Students will develop the ability to make mathematical connections by solving problems in which there is a need to view mathematics as an integrated whole, identifying relationships between context strands, and integrating mathematics with other disciplines, allowing the flexibility to approach problems in a variety of ways within and beyond the field of mathematics.*

## Carson City School District Math Curriculum Map

**Grade: Sixth  
First Quarter**

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>1.0</b>	<b>Content Strand : Numbers, Number Sense and Computation</b>			1-83	
1.6.1	Read, write, add, subtract, multiply, and divide using whole numbers	<b>E/S</b>	GMH Chapter 1 VM I Lesson 2,25		
1.6.1	Read, write, add, subtract, and multiply using decimals.	<b>E/S</b>	GMH Chapter 3-4 VM I Lesson 25,37		
1.6.1	Divide using decimals.	<b>I/S</b>	GMH Chapter 4 VM I Lesson 38		
1.6.2	Apply decimals to solve mathematical and practical problems.	<b>E/S</b>	GMH Chapter 3-4		
1.5.3	Use order of operations to solve problems.	<b>E/S</b>	GMH Chapter 1 VM I Lesson 3		
1.8.1	Read, write and evaluate exponents.	<b>I/S</b>	GMH Chapter 1		
1.6.6	Compare and order groups of decimals.	<b>I/S</b>	GMH Chapter 1		
1.6.7	Round to a given decimal place value; estimate using decimals.	<b>E/S</b>	GMH Chapter		
1.6.9	Use models and drawings to identify, compare, add, and subtract fractions with unlike denominators; use models to translate among decimals.	<b>I/S</b>	GMH Chapter 3-4		

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>2.0</b>	<b>Content Strand : Patterns, Functions, Algebra</b>			170-179	
2.6.1	Use and create tables and charts to extend a pattern in order to describe a rule.	<b>E/S</b>	GMH Chapter 1		
2.6.2	Identify, model, describe, and evaluate relationships using charts and tables, with and without technology.	<b>I/S</b>	Chapter 2		
2.6.7	Use a rule to create a table and represent the ordered pairs on a coordinate grid.	<b>I/S</b>	GMH Chapter 2		
<b>3.0</b>	<b>Content Strand : Measurement</b>			125-139	
3.6.1	Estimate and convert, units of measure for length, weight, and capacity, within the metric system.	<b>E/S</b>	GMH Chapter 3		
<b>4.0</b>	<b>Spatial Relations and Geometry</b>			153-154	
4.6.3	Using a coordinate grid, identify coordinates for a given point and locate points of given coordinates; plot geometric shapes in all four quadrants.	<b>I/S</b>	GMH Chapter 2		
<b>5.0</b>	<b>Content Strand : Data analysis</b>			182-185	
5.6.1	Interpret data using various formats including circle graphs.	<b>I/S</b>	GMH Chapter 2		
5.6.5	Analyze the effect a change of format will have on interpretation of statistical charts and graphs.	<b>I/L</b>	GMH Chapter 2		

<b>6.0</b>	<b>Process Standard: Problem Solving</b>				
6.1	Select, modify, develop, and apply strategies to solve a variety of mathematical practical problems and to investigate and understand mathematical concepts. <b>(ongoing)</b>	<b>E/S</b>	<b>(ongoing)</b>		
6.2	Apply previous experience and knowledge to new problem-solving situations. <b>(ongoing)</b>	<b>E/S</b>	<b>(Ongoing)</b>		
6.5	Verify, interpret, and evaluate results with respect to the original problem situation, determining an efficient strategy for the given situation. <b>(ongoing)</b>	<b>E/S</b>	<b>(Ongoing)</b>		
6.7	Apply multi-step, integrated, mathematical problem-solving strategies, persisting until a solution is found or until it is clear that no solution exists. <b>(ongoing)</b>	<b>E/S</b>	<b>(Ongoing)</b>		
6.9	Generalize solutions and strategies from earlier problems to new problem situations. <b>(ongoing)</b>	<b>E/L</b>	<b>(Ongoing)</b>		
6.10	Interpret and solve a variety of mathematical problems by paraphrasing, identifying necessary and extraneous information, selecting and justifying efficient methods and/or strategies, and ensuring the answer is reasonable. <b>(ongoing)</b>	<b>E/S</b>	<b>(Ongoing)</b>		
6.13	Use technology, including calculators, to solve problems and verify solutions. <b>(ongoing)</b>	<b>E/L</b>	<b>(Ongoing)</b>		
6.14	Use technology, including calculators, to investigate, define, and describe quantitative relations such as patterns and functions. <b>(ongoing)</b>	<b>E/L</b>	<b>(Ongoing)</b>		
<b>7.0</b>	<b>Process Standard: Mathematical Communication</b>				
7.1	Discuss and exchange ideas about mathematics as a part of learning. <b>(ongoing)</b>	<b>E/L</b>	<b>(Ongoing)</b>		
7.2	Use inquiry techniques (e.g. discussion, questions, research, data gathering) to solve mathematical problems. <b>(ongoing)</b>	<b>E/L</b>	<b>(Ongoing)</b>		

7.5	Identify and translate key words and phrases that imply mathematical operations. <b>(ongoing)</b>	I/S	<b>(Ongoing)</b>		
7.8	Use physical material, diagrams, and tables to represent and then communicate mathematical ideas through oral, verbal, and written format. <b>(ongoing)</b>	E/S	<b>(Ongoing)</b>		
7.11	Make conjectures and present arguments in discussions of mathematical ideas. <b>(ongoing)</b>	E/S	<b>(Ongoing)</b>		
7.12	Explain and justify thinking about mathematical ideas and solutions. <b>(ongoing)</b>	W/L	<b>(Ongoing)</b>		
7.15	Use everyday language to explain thinking about strategies and solutions to mathematical problems. <b>(ongoing)</b>	E/L	<b>(Ongoing)</b>		
7.16	Express mathematical ideas and use them to define, compare, and solve problems orally and in writing. <b>(ongoing)</b>	E/S	<b>(Ongoing)</b>		
7.17	Use mathematical notation to communicate and explain mathematical situations. <b>(ongoing)</b>	E/L	<b>(Ongoing)</b>		
<b>8.0</b>	<b>Process Standard: Mathematical Reasoning</b>				
8.2	Justify answers and the steps taken to solve problems, with and without manipulatives and physical models.	E/S	<b>(Ongoing)</b>		
8.4	Use patterns and relationships to analyze mathematical situations; draw logical conclusions about mathematical problems. <b>(ongoing)</b>	E/S	<b>(Ongoing)</b>		
8.5	Follow a logical argument and judge its validity. <b>(ongoing)</b>	E/L	<b>(Ongoing)</b>		
8.6	Apply deductive and inductive reasoning in mathematical situations to extend logical reasoning. <b>(ongoing)</b>	E/S	<b>(Ongoing)</b>		

8.8	Ask questions to reflect on, clarify, and extend thinking. <b>(ongoing)</b>	<b>E/L</b>	<b>(Ongoing)</b>		
8.9	Review and refine the assumptions and steps used to derive conclusions in mathematical arguments. <b>(ongoing)</b>	<b>I/L</b>	<b>(Ongoing)</b>		
8.11	Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems. <b>(ongoing)</b>	<b>E/S</b>	<b>(Ongoing)</b>		
<b>9.0</b>	<b>Process Standard: Mathematical Connections</b>				
9.1	Link new concepts to prior knowledge. <b>(ongoing)</b>	<b>E/L</b>	<b>(Ongoing)</b>		
9.2	Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics. <b>(ongoing)</b>	<b>E/S</b>	<b>(Ongoing)</b>		
9.3	Use models to explain the relationship of concepts to procedures. <b>(ongoing)</b>	<b>E/S</b>	<b>(Ongoing)</b>		
9.5	Identify practical applications of mathematical principles that can be applied to other disciplines. <b>(ongoing)</b>	<b>I/L</b>	<b>(Ongoing)</b>		
9.7	Apply mathematical thinking and modeling to solve problems that arise in other disciplines (e.g. rhythm in music and motion in science). <b>(ongoing)</b>	<b>E/L</b>	<b>(Ongoing)</b>		
9.8	Identify, explain, and use mathematics in everyday life. <b>(ongoing)</b>	<b>I/S</b>	<b>(Ongoing)</b>		

# Carson City School District Math Curriculum Map

## Grade: Sixth Second Quarter

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>1.0</b>	<b>Content Strand: Numbers, Number Sense and Computation</b>			1-83	
1.6.1	Read, write, add, subtract, and multiply using decimals.	<b>E/S</b>	GMH Chapter 3-4		
1.6.1	Divide using decimals.	<b>I/S</b>	GMH Chapter 4		
1.6.2	Apply decimals to solve mathematical and practical problems.	<b>E/S</b>	GMH Chapter 3-4		
1.6.6	Compare and order groups of decimals.	<b>I/S</b>	GMH Chapter 1		
1.6.7	Round to a given decimal place value; estimate using decimals.	<b>E/S</b>	GMH Chapter		
1.6.9	Use models and drawings to identify, compare, add, and subtract fractions with unlike denominators; use models to translate among decimals.	<b>I/S</b>	GMH Chapter 3-4		
<b>3.0</b>	<b>Content Standard: Measurement</b>			132-136	
3.6.1	Estimate and convert, units of measure for length, weight, and capacity, within the metric system.	<b>E/S</b>	GMH Chapter 3		
3.6.2	Explain how the size of the unit used affects the precision; given two measurements of the same object, select the one that is more precise.	<b>E/S</b>			
3.6.3	Estimate, measure to the required degree of accuracy, derive, and apply formulas to find the perimeter, and area of plane figures.			155-166	

# Carson City School District Math Curriculum Map

## Grade: Sixth Third Quarter

<i>Content Standard</i>	<i>Skills Concepts</i>	<i>Priority/ Assessment</i>	<i>Resources</i>	<i>Accelerated Math Objective(s)</i>	<i>Interdisciplinary Links</i>
<b>1.0</b>	<b>Content Strand: Numbers, Number Sense and Computation</b>			84-124	
1.6.1	Read, write, add, and subtract fractions.	<b>E/S</b>	GMH Chapter 6 VM I Lesson 8		
1.6.2	Apply fractions to solve mathematical and practical problems.	<b>E/S</b>	GMH Chapter 6		
1.6.3	Use the concepts of number theory, including prime and composite numbers, factors, multiples, and the rules of divisibility.	<b>I/S</b>	GMH Chapter 5 VM I Lesson 7		
1.6.6	Compare and order groups of fractions.	<b>I/S</b>	GMH Chapter 5		
1.6.7	Estimate using fractions.	<b>E/S</b>	GMH Chapter 6		
1.6.9	Use models and drawings to identify, compare, add, and subtract fractions with unlike denominators; use models to translate among fractions.	<b>I/S</b>	GMH Chapter 5-7		
<b>2.0</b>	<b>Content Strand: Patterns, Functions, Algebra</b>				
2.6.1	Use and create tables and charts to extend a pattern in order to describe a rule.	<b>E/S</b>	GMH Chapter 7	178	
<b>3.0</b>	<b>Content Strand: Measurement</b>				
3.6.1	Estimate and convert, units of measure for length, weight, and capacity, within the customary system.	<b>E/S</b>	GMH Chapter 3	125-131	

# Carson City School District Math Curriculum Map

## Grade: Sixth Fourth Quarter

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>1.0</b>	<b>Content Strand: Numbers, Number Sense, and Computation</b>			186-205	
1.6.1	Read, and write percentages.	<b>I/S</b>	GMH Chapter 8 VM I Lesson 39		
1.6.7	Estimate using percents.	<b>I/S</b>	GMH Chapter 8		
1.6.9	Use models and drawings to identify, compare percents.	<b>I/S</b>	GMH Chapter 8		
<b>3.0</b>	<b>Content Strand: Measurement</b>				
3.6.3	Estimate, measure to the required degree of accuracy, derive, and apply formulas to find circumference.	<b>E/S</b>	GMH Chapter 7	158	
3.6.5	Use ratios to describe and compare relationships between various objects.	<b>I/S</b>	GMH Chapter 8		
<b>4.0</b>	<b>Content Strand: Spatial Relations and Geometry</b>				
4.5.1	Draw and classify triangles, according to their properties; (e.g., right, scalene, obtuse, equilateral); identify and draw circles and parts of circles, describing the relationships between the various parts (e.g., central angle, arc, diameter)	<b>E/S</b>	GMH Chapter 9	140-148	

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
4.5.2	Identify shapes that have congruence, similarity, and/or symmetry of figures using a variety of methods including transformational motions (e.g., translation/slide, rotation/turn, reflection/flip, enlargement/reduction) and models, drawings, and measurement tools	E/S	GMH Chapter 9	149-152	
4.5.6	Identify, describe, define, and draw geometric figures including points, intersecting, perpendicular and parallel lines, line segments, rays, angles, and planes.	E/S	GMH Chapter 9		
4.6.1	Measure angles; identify, describe by properties, classify, compare, and draw regular and irregular quadrilaterals; find the sum of the interior angles of triangles and quadrilaterals.	E/S	GMH Chapter 9		
4.6.3	Using a coordinate grid, identify coordinates for a given point and locate points of given coordinates; plot geometric shapes in all four quadrants.	I/S	GMH Chapter 11	153-154	
4.6.4	Make a model of a three dimensional prism from a two-dimensional drawing and make a two-dimensional drawing of a three-dimensional prism.	I/L	GMH Chapter 10		
<b>5.0</b>	<b>Content Standard: Data analysis</b>				
5.5.4	Model and then compute measures of central tendency including mean, median, and mode.	I/L	GMH Chapter 2 VM I Lesson 11		
5.6.2	Conduct simple probability experiments using concrete materials and represent the results using decimals, percents, and ratios.	I/L	GMH Chapter 13	180-181, 194-205	