

Carson City School District  
Carson City, Nevada

## Grade 5 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

HSP = Harcourt School Publishers

S = Saxon

AM = Accelerated Mathematics

**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: Fifth First Quarter

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>1.0</b>	<b>Content Standard: Number Sense/ Computation</b>				
1.5.1	Multiply facts through 12	<b>E/S</b>			
1.5.4	Add and subtract decimals	<b>I/S</b>	Harcourt Brace (HSP) Ch. 4	57-66	
1.5.6	Compare and order numbers	<b>I/L</b>	HSP Ch. 1-2	6,7	
1.5.7	Round whole numbers and identify place value in determining reasonableness of the answer.	<b>I/L</b>	HSP Ch. 3-4	8, 9, 21-25, 29, 30	
1.5.8	Use and identify place value.	<b>E/S</b>	HSP Ch. 1-2	1-5, 51-55	
1.5.9	Problem solve using addition and subtraction with decimals.	<b>E/S</b>	HSP Ch. 4	58, 61, 63, 66	
<b>2.0</b>	<b>Content Standard: Patterns/Algebraic Thinking</b>				
<b>2.5.1</b>	Identify, describe, and explain patterns and relationships in the number system.	<b>I/L</b>	HSP Ch. 9, 23	181,182	

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>3.0</b>	<b>Content Standard: Measurement</b>				
3.5.6	Identify equivalent periods of time, including relationships between and among seconds, minutes, hours, days, months, and years (e.g. . 60 sec=1 min)	<b>E/S</b>	HSP Ch. 25	127,128	
<b>4.0</b>	<b>Content Standard: Geometry</b>				
4.5.1	Draw and classify angles: right, obtuse, and acute	<b>I/S</b>	HSP Ch. 23	134,135	
4.5.6	Identify and draw lines, segments, rays, angles, planes, parallel, perpendicular, and intersecting lines.	<b>E/S</b>	HSP Ch. 23	132,133	
<b>5.5</b>	<b>Content Standard: Data Analysis/Statistics</b>				
5.5.1	Use data to draw and explain conclusions and predictions.	<b>I/S</b>	HSP All chapters	155-160	
<b>6.0</b>	<b>Process Standard: Problem Solving</b>				
<b>6.1</b>	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>		

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
6.2	Apply previous experience and knowledge to new problem-solving situations. <b>(ongoing)</b>	E/S	<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>	E/S	<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>	E/S	<b>(Ongoing)</b>		
6.9	Generalize solutions and strategies from earlier problems to new problem situations. <b>(ongoing)</b>	E/L	<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>	E/S	<b>(Ongoing)</b>		
6.13	Use technology, including calculators, to solve problems and verify solutions. <b>(ongoing)</b>	E/L	<b>(Ongoing)</b>		
6.14	Use technology, including calculators, to investigate, define, and describe quantitative relations such as patterns and functions. <b>(ongoing)</b>	E/L	<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>	E/L	<b>(Ongoing)</b>		
7.2	Use inquiry techniques (e.g. discussion, questions, research, data gathering) to solve mathematical problems. <b>(ongoing)</b>	E/L	<b>(Ongoing)</b>		

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
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>		

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
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>	E/L	<b>(Ongoing)</b>		
8.9	Review and refine the assumptions and steps used to derive conclusions in mathematical arguments. <b>(ongoing)</b>	I/L	<b>(Ongoing)</b>		
8.11	Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems. <b>(ongoing)</b>	E/S	<b>(Ongoing)</b>		
<b>9.0</b>	<b>Process Standard: Mathematical Connections</b>				
9.1	Link new concepts to prior knowledge. <b>(ongoing)</b>	E/L	<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>	E/S	<b>(Ongoing)</b>		
9.3	Use models to explain the relationship of concepts to procedures. <b>(ongoing)</b>	E/S	<b>(Ongoing)</b>		
9.5	Identify practical applications of mathematical principles that can be applied to other disciplines. <b>(ongoing)</b>	I/L	<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>	E/L	<b>(Ongoing)</b>		
9.8	Identify, explain, and use mathematics in everyday life. <b>(ongoing)</b>	I/S	<b>(Ongoing)</b>		

# Carson City School District Math Curriculum Map

## Grade: Fifth Second Quarter

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>1.0</b>	<b>Content Standard: Number Sense/Computation</b>				
1.5.2	Generate and solve addition, subtraction, and multiplication problems using whole numbers.	<b>E/S</b>	HSP Ch. 11,12,14,25,28	17,20, 26-28	
1.5.3	Use order of operations to solve problems.	<b>E/S</b>	HSP Ch. 6		
1.5.5	Multiply multi-digit numbers by 2 digit numbers.	<b>E/S</b>	HSP. Ch. 9	34-36	
<b>2.0</b>	<b>Content Standard: Patterns, Functions, and Algebra</b>				
2.5.1	Identify, describe, and explain patterns and relationships in the number system (e.g. triangular numbers, perfect squares, and geometric sequences) using concrete materials, paper and pencil, and calculators.	<b>I/L</b>	HSP Ch. 9,10,23		
2.5.3	Using whole numbers as a replacement set, find possible solutions to such inequalities as $8+4 > N$	<b>I/S</b>	HSP Ch. 5		
2.5.4	Use variables in open sentences.	<b>E/S</b>	HSP Ch. 5-6		
2.5.5	Generate number sequences given the first term and basic computation rule (e.g. give a 4 and the rule of add 6, 10, 14...)	<b>I/S</b>	HSP Ch. 6		
2.5.7	Solve simple equations using a variety of methods (inverse, mental math, estimate and verify). <b>Ongoing</b>	<b>I/L</b>	HSP Ch. 2-3		

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>4.0</b>	<b>Content Standard: Geometry</b>				
4.5.1	Identify and draw circles and parts: diameter, radius, arc, chord, and central angle.	<b>I/S</b>	HSP Ch. 23, 24, 26	143	
4.5.2	Identify shapes that have congruence, similarity, and symmetry.	<b>I/S</b>	HSP Ch. 23, 24	138,139	
4.5.2	Use transformal motions.	<b>I/S</b>	H/B Ch. 23, 24	140	
<b>6.0-9.0</b>	<b>Process Standards 6-9:</b> Ongoing - Refer to 1 <sup>st</sup> quarter				

# Carson City School District Math Curriculum Map

## Grade: Fifth Third Quarter

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>1.0</b>	Content Standard: Number Sense				
1.5.1	Use and apply division facts through 12.	<b>E/S</b>			
1.5.4	Multiply decimals by whole numbers.	<b>I/S</b>	HSP Ch. 11,12,13	73,74, 81,82	
1.5.5	Generate and solve division problems using whole numbers.	<b>E/S</b>	HSP Ch. 11,12	42-50	
<b>3.0</b>	<b>Content Standard: Measurement</b>				
3.5.3	Estimate measures of length, volume, capacity, quantity, and weight, communicating degree of accuracy needed and when a more precise measure is required.	<b>E/S</b>	HSP Ch. 25	117-129	
3.5.4	Determine totals and change due for monetary amounts.	<b>E/S</b>	HSP Ch. 4, 10, 13	57-58, 62-63, 72,78,80, 130-31	
3.5.5	Communicate the difference between perimeter and area.	<b>I/S</b>	HSP Ch. 26	145-151	
<b>4.0</b>	<b>Content Standard: Geometry</b>				
4.5.3.	Using a grid, identify coordinates for a given point or locate points of given coordinates in the first qtr.	<b>E/S</b>	HSP Ch. 8, 22, 23	144	

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
4.5.4	Identify, describe, compare, and classify 2 and 3 dimensional figures using vertices, edges, and faces. Identify and predict the effects of combining, dividing, and changing shapes into other shapes.	E/S	HSP Ch. 23, 24	142	
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	HSP Ch. 23	132,-136	
<b>5.0</b>	<b>Content Standard: Data Analysis/Statistics</b>				
5.5.1	Collect, organize, read, and interpret data using a variety of graphic representations including tables, line plots, stem and leaf plots, scatter plots, histograms; use data to draw and explain conclusions and predictions.	I/S	HSP Ch. 1, 2, 7, 8, 25	155-168	
5.5.4	Model and then compute measures of central tendency including mean, median, and mode.	I/S	HSP Ch. 7	163-166	
5.5.6	Describe the limitations of various graph formats: select an appropriate type of graph to accurately represent the data and justify the selection.	I/L	HSP Ch. 8	155-162	
<b>6.0-9.0</b>	<b>Processing Standards 6-9 Ongoing – Refer to 1<sup>st</sup> Quarter</b>				

# Carson City School District Math Curriculum Map

## Grade: Fifth Fourth Quarter

Content Standard	Skills Concepts	Priority/ Assessment	Resources	Accelerated Math Objective(s)	Interdisciplinary Links
<b>1.0</b>	<b>Content Standard : Number Sense</b>				
1.5.6	Compare and order negative numbers and plot on a number line.	<b>E/S</b>	HSP Ch. 21		
1.5.9	Fractions: Use models and drawing to identify, compare, add, and subtract fractions with like denominators.	<b>E/S</b>	HSP Ch. 16-17	83-85, 92-93 96,97 102,103	
1.5.9	Fractions: Problem solve using addition and subtraction with fractions.	<b>E/S</b>	HSP Ch. 16-18	98	
<b>2.0</b>	<b>Content Standard: Patterns/Algebra</b>				
2.5.4	Describe simple functions and relationships	<b>E/S</b>	HSP Ch. 5,6		
<b>6.0-9.0</b>	<b>Process Standards 6-9 Ongoing- Refer to 1<sup>st</sup> quarter</b>				