2012–2013
Grade 3

This three part document serves as a guide for the transition from the Nevada State Standards (NSS) to the Common Core State Standards (CCSS). Users of this document should also refer to the Grade 3 Introduction and Narrative, and the Glossary of the CCSS.

Part I: The tables below list the Common Core State Standards introduced or maintained in Grade 3 in school year 2012–2013. Corresponding Nevada State Standards are listed where the content matches in whole or in part. Teachers are expected to maintain the NSS as well as teach the CCSS. In many cases, the expectations of the CCSS exceed the NSS. Teachers must move their instruction, and therefore their students' mathematical knowledge, from the level of the NSS to these CCSS. Teachers must also incorporate the *Standards for Mathematical Practice* into instruction to complete students' educational experiences. Additional clarification is provided in the comments for some CCSS. Cells shaded gray indicate CCSS introduced in school year 2011–2012 that must be maintained.

Operations and Algebraic Thinking

Represent and solve problems involving multiplication and division.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.OA.1 Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.*	1.3.8 Generate and solve two-step addition and subtraction problems and one-step multiplication problems based on practical situations. Model addition, subtraction, multiplication, and division in a variety of ways. Use mathematical vocabulary and symbols to describe multiplication and division.	0	While addition and subtraction problems in the NSS are still expected, it is not explicitly stated in this CCSS.
3.OA.2 Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 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. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*	1.3.8 Generate and solve two-step addition and subtraction problems and one-step multiplication problems based on practical situations. Model addition, subtraction, multiplication, and division in a variety of ways. Use mathematical vocabulary and symbols to describe multiplication and division.	0	While addition and subtraction problems in the NSS are still expected, it is not explicitly stated in this CCSS.

---

[1] Grade Level Change from current NSS to CCSS. (i.e., –1 indicates that the NSS was previously taught in the grade above.)

Operations and Algebraic Thinking

Represent and solve problems involving multiplication and division.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.OA.3 Use multiplication and division within 100 to solve word problems in 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. *Note: See CCSS Glossary, Table 2.*	1.3.8 Generate and solve two-step addition and subtraction problems and one-step multiplication problems based on practical situations. Model addition, subtraction, multiplication, and division in a variety of ways. Use mathematical vocabulary and symbols to describe multiplication and division.	0	While addition and subtraction problems in the NSS are still expected, it is not explicitly stated in this CCSS.
	2.3.2 Model, explain, and solve open number sentences involving addition, subtraction, and multiplication facts. Use variables and open sentences to express relationships.	0	
3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.*	2.4.2 Model, explain, and solve open number sentences involving addition, subtraction, multiplication, and division. Select the solution to an equation from a given set of numbers.	–1	

Understand properties of multiplication and the relationship between multiplication and division.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.OA.5 Apply properties of operations as strategies to multiply and divide. *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3× 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)* *Note: Students need not use formal terms for these properties.*			This CCSS does not require students to use formal terms for properties.
3.OA.6 Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.*	2.4.2 Model, explain, and solve open number sentences involving addition, subtraction, multiplication, and division. Select the solution to an equation from a given set of numbers.	–1	Extend modeling of division in the NSS to include inverse operations as described in this CCSS.

---

[1] Grade Level Change from current NSS to CCSS. (i.e., –1 indicates that the NSS was previously taught in the grade above.)

Operations and Algebraic Thinking

Understand properties of multiplication and the relationship between multiplication and division.

Students need not use formal terms for these properties.

Multiply and Divide within 100.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	1.4.5 Immediately recall and use multiplication and corresponding division facts (products to 144).	–1	This CCSS focuses on fluency with multiplication/division within 100.

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.OA.8 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. *Note: This standard is limited to problems posed with whole numbers and having whole number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).*	1.4.6 Estimate to determine the reasonableness of an answer in mathematical and practical situations.	–1	This CCSS includes the use of mental computation.
	1.4.8 Generate and solve addition, subtraction, multiplication, and division problems using whole numbers in practical situations.	–1	
	2.3.2 Model, explain, and solve open number sentences involving addition, subtraction, and multiplication facts. Use variables and open sentences to express relationships.	0	
3.OA.9 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.*	1.3.4 Model and explain multiplication and division as skip counting patterns. Model and explain multiplication and division as repeated addition or subtraction.	0	Extend modeling multiplication and division as repeated addition and subtraction, respectively, in the NSS to using properties of operations. Include use of the addition table to identify patterns.
	2.3.1 Recognize, describe, and create patterns using objects and numbers found in tables, number charts, and charts. Record results of patterns created using manipulatives, pictures, and numeric representations and describe how they are extended.	0	Extend patterns found in tables and charts in the NSS to using properties of operations.

---

[1] Grade Level Change from current NSS to CCSS. (i.e., –1 indicates that the NSS was previously taught in the grade above.)

Number and Operations—Base Ten

Use place value understanding and properties of operations to perform multi-digit arithmetic.

A range of algorithms may be used.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.	1.3.1 Identify, use, and model place value positions of 1's, 10's, 100's, and 1,000's. Identify the value of a given digit in the 1's, 10's, 100's, and 1,000's place.	0	Extend identifying place value in the NSS to rounding whole numbers to the nearest 10 or 100.
3.NBT.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.	1.3.7 Add and subtract two- and three-digit numbers with and without regrouping. Add and subtract decimals using money as a model.	0	Addition and subtraction of decimals as money in the NSS is no longer expected.
3.NBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.	1.5.5 Use multiples of 10 to expand knowledge of basic multiplication and division facts.	–2	

Number and Operations—Fractions

Develop understanding of fractions as numbers.

Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, 8.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.NF.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.	1.3.2 Identify and model the unit fractions 1/2, 1/3, 1/4, 1/6, and 1/8 as equal parts of a whole or sets of objects. Read and write unit fractions with numbers and words.	0	
3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram. a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.			

---

[1] Grade Level Change from current NSS to CCSS. (i.e., –1 indicates that the NSS was previously taught in the grade above.)

Number and Operations—Fractions

Develop understanding of fractions as numbers.

Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, 8.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram. b. Represent a fraction *a*/*b* on a number line diagram by marking off a lengths 1/*b* from 0. Recognize that the resulting interval has size *a*/*b* and that its endpoint locates the number *a*/*b* on the number line.			
3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.	1.4.2 Identify fractions and compare fractions with like denominators using models, drawings, and numbers.	–1	The CCSS focuses on equivalent fractions on a number line.
3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. b. 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.	1.4.2 Identify fractions and compare fractions with like denominators using models, drawings, and numbers.	–1	The CCSS focuses on equivalent fractions and fraction models.
3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. c. 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.*			
3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. d. 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.			

---

[1] Grade Level Change from current NSS to CCSS. (i.e., –1 indicates that the NSS was previously taught in the grade above.)

Measurement and Data

Represent and interpret data.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3MD.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. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*	5.3.1 Pose questions that can be used to guide data collection, organization, and representation. Use graphical representations, including number lines, frequency tables, and pictographs to represent data.	0	Extend graphical representations in the NSS to include drawing scaled pictographs and bar graphs, and solving problems using the information presented.
3.MD.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.	3.3.2 Select and use appropriate units of measure. Measure to a required degree of accuracy (to the nearest 1/2 unit).	0	Extend identifying place value in the NSS to include fourths.
	5.4.1 Pose questions that can be used to guide the collection of categorical and numerical data. Organize and represent data using a variety of graphical representations including frequency tables and line plots.	–1	

Geometry

Reason with shapes and their attributes.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change[1]	Comments
3.G.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.	4.5.1 Identify, classify, compare, and draw triangles and quadrilaterals based on their properties. Identify and draw circles and parts of circles, describing the relationships between the various parts.	–2	While work with triangles and circles in the NSS is still expected, it is not explicitly stated in this CCSS.
3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *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.*	1.3.2 Identify and model the unit fractions 1/2, 1/3, 1/4, 1/6, and 1/8 as equal parts of a whole or sets of objects. Read and write unit fractions with numbers and words.	0	Extend modeling of fractions in the NSS to include partitioning shapes, recognizing that partitions of equal area may not be the same shape.

---

[1] Grade Level Change from current NSS to CCSS. (i.e., –1 indicates that the NSS was previously taught in the grade above.)

Part II: The table below lists the Nevada State Standards (NSS) teachers are expected to continue to teach in Grade 3 in school year 2012–2013. In some cases, only part of the standard is to be maintained. These standards are still eligible to be assessed. Standards in **bold** indicate those found in Part I that link to the CCSS. Standards underlined indicate those that cannot be assessed on the state Criterion Reference Test (CRT). Additional clarification is provided in the comments.

Nevada State Standard (NSS)	**Comments**
1.3.1, **1.3.2**, 1.3.3, **1.3.4**, 1.3.5, **1.3.8** **2.3.1**, **2.3.2**, 2.3.3 3.3.2, 3.3.6 4.3.1 **5.3.1**	Continue to teach the entire standard.
1.3.7 (partial) Add and subtract two- and three-digit numbers with and without regrouping.	Continue to teach this portion of the standard.

Part III: The table below lists the Nevada State Standards (NSS) teachers are no longer expected to teach in Grade 3 in school year 2012–2013. In some cases, only part of a standard is to be deleted. Additional clarification is provided in the comments. Cells shaded gray indicate NSS eliminated in school year 2011–2012.

Nevada State Standard (NSS)	**Comments**
1.3.6 Estimate the number of objects in a set using various techniques.	While this is not a *content* standard under the CCSS, students must continue to use estimation as part of the *Standards for Mathematical Practice*.
1.3.7 (partial) Add and subtract decimals using money as a model.	Formal operations with decimals first appear in the CCSS in Grade 5.
3.3.1 Compare, order, and describe objects by various measurable attributes for area and volume/capacity.	
3.3.4 Determine possible combinations of coins and bills to equal given amounts. Read, write, and use money notation. Recognize equivalent relationships between and among bills and coins.	This standard is in the CCSS in Grade 2.
4.3.2 Demonstrate and describe the transformational motions of geometric figures (translation/slide, reflection/flip, and rotation/turn).	This standard is in the CCSS in Grade 8.
4.3.3 Create two-dimensional designs that contain a line of symmetry.	This standard is in the CCSS in Grade 4.
4.3.4 Compare, contrast, sketch, model, and build two- and three-dimensional geometric figures and objects.	This standard is in the CCSS in Grades K and 1.

[1] Grade Level Change from current NSS to CCSS. (i.e., –1 indicates that the NSS was previously taught in the grade above.)

Part III continued:

Nevada State Standard (NSS)	**Comments**
4.3.6 Identify, draw, and describe horizontal, vertical, and oblique lines.	
4.3.9 Use the quantifiers all, some, and none to describe the characteristics of a set.	
5.3.5 Use informal concepts of probability (certain, likely, unlikely, impossible) to make predictions about future events.	This standard is in the CCSS in Grade 7.

---

[1] Grade Level Change from current NSS to CCSS. (i.e., –1 indicates that the NSS was previously taught in the grade above.)