



**2011–2012
Grade 6**

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 into Grade 6 in school year 2011–2012. 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 these 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 the 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.

Ratios and Proportional Relationships			
Understand ratio concepts and use ratio reasoning to solve problems.			
Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change¹	Comments
6.RP.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. <i>For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”</i>			
6.RP.2 Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. <i>For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar.” “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.”</i>	3.6.4 Compare and use unit cost in practical situations.	0	Extend unit cost in NSS to include other applications of unit rate.
6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. a. Make tables of equivalent ratios relating quantities with whole- number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	2.6.4 When given a rule relating two variables, create a table and represent the ordered pairs on a coordinate plane.	0	Extend the NSS to include comparing ratios from tables.
	3.6.5 Write and apply ratios in mathematical and practical problems involving measurement and monetary conversions.	0	

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



Ratios and Proportional Relationships

Understand ratio concepts and use ratio reasoning to solve problems.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change ¹	Comments
<p>6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</p> <p>b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</p>	<p>3.6.4 Compare and use unit cost in practical situations.</p>	0	Extend unit cost in NSS to include other applications of unit rate such as constant speed.
<p>6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</p> <p>c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.</p>	<p>1.6.7 Calculate using fractions, decimals, and percents in mathematical and practical situations.</p> <p>Use order of operations to evaluate expressions with integers.</p>	0	Extend calculation using percents in this NSS to include finding a part, percent, or whole.
<p>6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</p> <p>d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.</p>	<p>3.6.5 Write and apply ratios in mathematical and practical problems involving measurement and monetary conversions.</p>	0	Extend writing and applying ratios about measurement and money in the NSS to <u>reasoning</u> about conversions, and to other applications.

Expressions and Equations

Apply and extend previous understandings of arithmetic to algebraic expressions.

Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change ¹	Comments
<p>6.EE.1 Write and evaluate numerical expressions involving whole number exponents.</p>	<p>1.12.7 Solve mathematical problems involving exponents and roots.</p> <p>Perform addition, subtraction, and scalar multiplication on matrices.</p>	-3	

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Statistics and Probability			
Develop understanding of statistical variability.			
Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change¹	Comments
6.SP.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. <i>For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.</i>	5.7.1 Formulate questions that guide the collection of data. Organize, display, and read data using the appropriate graphical representations (with and without technology).	-1	Extend formulating questions in the NSS to those that anticipate variability as described in this CCSS.
Statistics and Probability			
Develop understanding of statistical variability.			
Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change¹	Comments
6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	5.7.2 Interpret graphical representations of data to describe patterns, trends, and data distribution.	-1	
6.SP.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	5.6.2 Select and apply the measures of central tendency to describe data.	0	Extend finding measures of center in the NSS to <u>understanding</u> how they represent data sets.
	5.8.2 Select and apply appropriate measures of data distribution, using interquartile range and central tendency.	-2	Extend finding measures of variation in the NSS to <u>understanding</u> how they represent data sets.
Summarize and describe distributions.			
Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change¹	Comments
6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	5.8.1 Organize, display, and read data including box and whisker plots (with and without technology).	-2	
6.SP.5 Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations.	5.6.1 Pose questions that guide the collection of data. Organize and represent data using a variety of graphical representations including circle graphs and scatter plots.	0	

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Statistics and Probability Summarize and describe distributions.			
Common Core State Standard (CCSS)	Nevada State Standard (NSS)	Change ¹	Comments
6.SP.5 Summarize numerical data sets in relation to their context, such as by: b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.			
6.SP.5 Summarize numerical data sets in relation to their context, such as by: c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	5.8.2 Select and apply appropriate measures of data distribution, using interquartile range and central tendency.	-2	Extend finding measures of variation in the NSS to computation and meaning of mean absolute deviation. De-emphasize range as a measure of variation.
6.SP.5 Summarize numerical data sets in relation to their context, such as by: d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.			

Part II: The table below lists the Nevada State Standards (NSS) teachers are expected to continue to teach in Grade 6 in school year 2011–2012. 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
1.6.1, 1.6.2, 1.6.3, 1.6.5, 1.6.6, 1.6.7 , 1.6.8 2.6.1, 2.6.2, <u>2.6.3</u> , 2.6.4 3.6.3, 3.6.4 , 3.6.5 4.6.1, 4.6.2, 4.6.3, <u>4.6.4</u> , <u>4.6.5</u> , 4.6.6, <u>4.6.7</u> , <u>4.6.8</u> , <u>4.6.9</u> , 5.6.1 , 5.6.2 , 5.6.3, 5.6.5, 5.6.6	Continue to teach the entire standard.

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Part III: The table below lists the Nevada State Standards (NSS) teachers are no longer expected to teach in Grade 6 in school year 2011–2012. In some cases, only part of a standard is to be deleted. Additional clarification is provided in the comments.

Nevada State Standard (NSS)	Comments
3.6.1 Estimate and compare corresponding units of measure for temperature, length, and weight/mass between customary and metric systems.	This concept is embedded in the Mathematical Practices.
3.6.2 Given two measurements of the same object, select the one that is more precise. Explain how the size of the unit of measure used effects precision.	This concept is embedded in the Mathematical Practices.
3.6.6 Use equivalent periods of time to solve practical problems.	This standard is in the CCSS in Grade 4.
5.6.4 Find the number of outcomes for a specific event by constructing sample spaces and tree diagrams.	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.)