Nevada Department of Education

Nevada Ready!

Nevada Alternate Assessment

Nevada Academic Content Standard Connectors for Mathematics

Grade 8

Contents

Nevada Academic Content Connectors

The Nevada Academic Content Connectors (NACC) for Math represent the academic skills upon which students to be instructed. The NACCs for Math are linked to the Nevada Academic Content Standards and represent the key academic knowledge, skills and abilities of the Math content at each grade level. The Nevada Alternate Assessment for mathematics will report to the Smarter Balanced Claims for Mathematics.

Example: Mathematics Grade 3

Nevada Academic Content Standards (NVACS)	NVAC Connectors
Use place value understanding and properties of operations to perform multi-digit arithmetic. 0	
3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100. **(2)**	• Use place value to round whole numbers to the nearest 10. **(3)**
3.NBT.A.2 Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. **(2)**	• Fluently add and subtract within 1,000 with non-regrouping numbers. **(3)**

(1) Mathematics Cluster Heading
(2) Mathematics Content Standards
(3) Connectors to the content standards

The Nevada Alternate Assessment was developed to allow students an opportunity to fully demonstrate their knowledge in each content area. This ability to demonstrate knowledge of core content and skills is critical as educators seek to provide access to the general education curriculum while fostering higher expectations for students with significant cognitive disabilities.

NAA Mathematics NVAC Connectors - Grade 8

Nevada Academic Content Standards (NVACS)	NVAC Connectors
Know that there are numbers that are not rational, and approximate them by rational numbers.	
8.NS.A.1 Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.	Identify numbers as being either rational or irrational numbers.
Expressions and equations work with radicals and integer exponents.	
8.EE.A.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.	Identify equivalent expressions involving integer exponents.
8.EE.A.3 Use numbers expressed in the form of a single digit times in an integer power of 10 to estimate very large or very small quantities and to express how many times as much one is than the other.	Write a number in scientific notation.
Understand the connections between proportional relationships, lines, and linear equations.	
8.EE.B.5 Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships presented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of the two moving objects has greater speed.	Identify unit rate. Identify positive or negative slopes represented in a graph.
Analyze and solve linear equations and pairs of simultaneous linear equations.	
8.EE.C.7 Solve linear equations in one variable. 8.EE.C.7.a Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).	Solve linear equation with one variable.

Nevada Academic Content Standards (NVACS)	NVAC Connectors
Define, evaluate, and compare functions.	
8.F.A.1 Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.	Identify a function using an input/output table.
8.F.A.2 Compare properties of two functions each prepresented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	Compare the properties of two functions
8.F.A.3 Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear.	Idntify linear and nonlinear functions.
Understand congruence and similarity using physical models, transparencies, or geometry software.	
8.G.A.1 Verify experimentally the properties of rotations, reflections, and translations. 8.G.A.1.a Lines are taken to lines, and line segments to line segments of the same length. 8.G.A.1.b Angles are taken to angles of the same measure. 8.G.A.1.c Parallel lines are taken to parallel lines.	Identify congruent line segments and congruent angles.
8.G.A.2 Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.	Given two figures on a coordinate plane, identify whether the image is a result of translation, rotation, or reflection of the preimage.
8.G.A.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	Describe the effects of transformations of a figure shown on a coordinate plane.
Investigate patterns of association in bivariate data.	
8.SP.A.2 Know that stragith lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line and informally assess the model fit by judging the closeness of the data points to the line.	Use a scatterplot to determine the line of best fit.