

Nevada Alternate Assessment

Nevada Academic Content Standard
Connectors for Mathematics
Grade 7

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Nevada Academic Content Connectors

The Nevada Academic Content Connectors (NACC) for Math represents 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.

- **Claim #1- Concepts & Procedures**-“Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.”
- **Claim #2 – Problem Solving** “Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.”
- **Claim #3 – Communicating Reasoning** “Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.”
- **Claim #4- Modeling and Data Analysis**-
“Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.”

Example:

Nevada Academic Content Standards (NVACS)	NVAC Connectors
<p><i>Math Content Standard</i> 7.RP.A.3 Use proportional relationships to solve multi-step ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</p>	<p>Solve one-step percent problems.<i>(Connector to the content standard)</i></p>
<p><i>Math Content Standard</i> 7.NS.A.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</p>	<p>Given a labeled horizontal number line diagram, represent addition and subtraction of rational numbers. <i>(Connector to the content standard)</i></p>

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 7

Analyze proportional relationships and use them to solve real-world and mathematical problems

Nevada Academic Content Standards (NVACS)	NVAC Connectors
<p>7.RP.A.3 Use proportional relationships to solve multi-step ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</p>	<p>Solve one-step percent problems.</p>

Apply and extend previous understanding of operations with fractions

Nevada Academic Content Standards (NVACS)	NVAC Connectors
<p>7.NS.A.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. 7.NS.A.1.a Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged. 7.NS.A.1.b Understand $p + q$ as the number located a distance q from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.</p>	<p>Given a labeled horizontal number line diagram, represent addition and subtraction of rational numbers.</p> <p>Identify opposite quantities that combine to make zero.</p> <p>Use a number line to show that a number and its opposite have a sum of zero.</p>
<p>7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers.</p>	<p>Solve real-world and mathematical problems with rational numbers using models.</p>

Solve real-world and mathematical problems involving the four operations with rational numbers

Nevada Academic Content Standards (NVACS)	NVAC Connectors
7.EE.B.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.	Solve one-step real-life and mathematical problems using positive and negative numbers.
7.EE.B.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.	Identify and solve simple equations and inequalities using variables to represent quantities.

Draw construct, and describe geometrical figures and describe the relationships between them.

Nevada Academic Content Standards (NVACS)	NVAC Connectors
7.G.A.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	Identify types of triangles with given angle characteristics, such as obtuse, acute or right.

Use random sampling to draw inferences about a population

Nevada Academic Content Standards (NVACS)	NVAC Connectors
7.SP.A.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	Identify and/or make generalizations about a population based on a sample.

Investigate chance processes and develop, use, and evaluate probability models

Nevada Academic Content Standards (NVACS)	NVAC Connectors
7.SP.C.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.	Determine the likelihood of a future event.

Draw construct, and describe geometrical figures and describe the relationships between them

Nevada Academic Content Standards (NVACS)	NVAC Connectors
7.G.A.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	Solve problems using scale drawings of rectangles.