

Nevada Alternate Assessment

Nevada Academic Content Standard
Connectors for Mathematics
Grade 3

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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> 3.OA.A.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each.</p>	<p>Represent the multiplication equation by determining the total number of objects in each group.<i>(Connector to the content standard)</i></p>
<p><i>Math Content Standard</i> 3.OA.B.5 Apply properties of operations as strategies to multiply and divide. Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</p>	<p>Identify equivalent expressions.<i>(Connector to the content standard)</i></p>

Nevada Department of Education

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 3

Representing and solve problems involving multiplication and division.

Nevada Academic Content Standards (NVACS)	NVAC Connectors
3.OA.A.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each.	Represent the multiplication equation by determining the total number of objects in each group.

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

Nevada Academic Content Standards (NVACS)	NVAC Connectors
3.OA.B.5 Apply properties of operations as strategies to multiply and divide. Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)	Identify equivalent expressions.

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

Nevada Academic Content Standards (NVACS)	NVAC Connectors
3.OA.D.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.	Solve two-step word problems using the addition and subtraction in context.
3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.	Identify addition and subtraction patterns.

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

Nevada Academic Content Standards (NVACS)	NVAC Connectors
3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.	Use place value to round whole numbers to the nearest 10.
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.	Fluently add and subtract within 100 with non-regrouping numbers.

Develop understanding of fractions as numbers.

Nevada Academic Content Standards (NVACS)	NVAC Connectors
3.NF.A.1 Understand a fraction $\frac{1}{b}$ as the	Identify how many equal parts make up a whole.

<p style="text-align: center;">Nevada Academic Content Standards (NVACS)</p>	<p style="text-align: center;">NVAC Connectors</p>
<p>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 $1/b$.</p>	
<p>3.NF.A.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram. 3.NF.A.2.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.</p>	<p>Identify basic unit fractions on a number line.</p>
<p>3.NF.A.3 Explain equivalence of fractions in special cases and compare fractions by reasoning about their size. 3.NF.A.3.a Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line. 3.NF.A.3.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.</p>	<p>Identify basic equivalent fractions.</p>

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

<p style="text-align: center;">Nevada Academic Content Standards (NVACS)</p>	<p style="text-align: center;">NVAC Connectors</p>
<p>3.MD.A.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.</p>	<p>Identify time to the nearest 15 minutes. Determine simple elapsed time.</p>

Represent and interpret data.

Nevada Academic Content Standards (NVACS)	NVAC Connectors
<p>3.MD.B.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.</p>	<p>Solve simple one-step problems using pictographs or bar graphs.</p>
<p>3.MD.B.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.</p>	<p>Use measurement data to solve problems.</p>

Reason with shapes and their attributes.

Nevada Academic Content Standards (NVACS)	NVAC Connectors
<p>3.G.A.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.</p>	<p>Identify shapes as quadrilaterals.</p>
<p>3.G.A.2 Partition shapes into parts with</p>	<p>Given a partitioned shape, identify the unit fraction.</p>

**Nevada Academic
Content Standards
(NVACS)**

NVAC Connectors

**equal areas. Express the area of each part
as a unit fraction of the whole.**
