

Nebraska



Nebraska Student-Centered Assessment System (NSCAS) Alternate Assessment

Mathematics–Grade 6 Table of Specifications for Students with Significant Disabilities who take the Statewide Alternate Assessment

**Mathematics Grade 6 Alternate Assessment
Table of Specifications**

	DOK Stage 2	DOK Stage 3	DOK Stage 4	Item Total
Number				
Numeric Relationships: Students will demonstrate, represent, and show relationships among fractions, decimals, percents, and integers within the base-ten number system.				
6.N.1.a Determine common factors and common multiples.				
6.N.1.a Identify the common factors of 4, 6, 8, 9, 10, 12, 15, and 20, given the factors of both numbers in an array or a multiplication sentence.	0-2	0-4	0-2	0-4
6.N.1.c Model integers using drawings, words, number lines, models and symbols.				
6.N.1.c Identify models of integers from -10 to 10 using drawings, words, manipulatives, number lines, and symbols.	0-2	0-4	0-2	0-4
6.N.1.d Determine absolute value of rational numbers.				
6.N.1.d Identify the absolute value of an integer between -10 and 10.	0-2	0-4	0-2	0-4
6.N.1.e Compare and order numbers including non-negative fractions and decimals, integers, and absolute values and locate them on the number line.				
6.N.1.e Compare and order halves with halves, quarters with quarters, and tenths with tenths from 0 to 1 on a number line and compare and order integers from -10 to 10 on a number line.	0-2	0-4	0-2	0-4
Operations: Students will compute with fractions and decimals accurately.				
6.N.2.a Divide multi-digit whole numbers and decimals using an algorithm.				
6.N.2.a Divide a two-digit number by a one-digit number with a remainder.	0-2	0-4	0-2	0-4
6.N.2.b Divide non-negative fractions and mixed numbers.				
6.N.2.b Use models to divide positive fractions with like denominators, limited to halves, fourths, thirds, and tenths.	0-2	0-4	0-2	0-4
6.N.2.c Evaluate numerical expressions including absolute value and/or positive exponents with respect to order of operations.				
6.N.2.c Evaluate numerical expressions involving addition, subtraction, and multiplication with respect to order of operations.	0-2	0-4	0-2	0-4
Ratios and Proportions				
Ratios and Rates: Students will understand the concept of ratios and unit rates, use language to describe the relationship between two quantities, and use ratios and unit rates to solve authentic situations.				
6.R.1.a Determine ratios from concrete models, drawings, and/or words.				
6.R.1.a Determine ratios from concrete models and drawings.	0-2	0-3	0-2	0-3

6.R.1.c Find a percent of a quantity as a rate per 100 and solve problems involving finding the whole, given a part and the percent.				
6.R.1.c Recognize $\frac{1}{10}$ and $\frac{1}{100}$ as ratios and convert to equivalent percents.	0-2	0-3	0-2	0-3
6.R.1.d Convert among fractions, decimals, and percents using multiple representations.				
6.R.1.d Using a model, convert halves, fourths, and tenths to decimals and identify the corresponding percentages for the fractions $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$.	0-2	0-3	0-2	0-3
6.R.1.e Solve authentic problems using ratios, unit rates, and percents.				
6.R.1.e Solve authentic problems using the ratios 1:1, 1:2, 1:3, 1:5, and 1:10.	0-2	0-3	0-2	0-3
Represent: Students will represent ratios and rates on the coordinate plane.				
6.R.2.f Plot the pair of values from a ratio table on the coordinate plane.				
6.R.2.f Identify the line on a coordinate grid that represents the values given in a ratio table.	0-2	0-3	0-2	0-3
Algebra				
Algebraic Processes: Students will apply the operational properties when evaluating expressions and solving equations and inequalities.				
6.A.1.a Recognize and generate equivalent algebraic expressions involving the distributive property and combining like terms.				
6.A.1.a Identify equivalent expressions with one variable by combining like terms, limited to digits 1–9 (e.g., $2n + 3n = 5n$).	0-2	0-4	0-2	0-4
6.A.1.b Given the value of the variable, evaluate algebraic expressions with non-negative rational numbers with respect to order of operations, which may include absolute value.				
6.A.1.b Given the positive integer value of the single variable, evaluate an addition or subtraction expression.	0-2	0-4	0-2	0-4
6.A.1.c Use substitution to determine if a given value for a variable makes an equation or inequality true.				
6.A.1.c Use substitution to determine if a given value for a variable makes an equation true.	0-2	0-4	0-2	0-4
6.A.1.d Solve one-step equations with non-negative rational numbers using addition, subtraction, multiplication, and division.				
6.A.1.d Add and subtract two decimal numbers without regrouping, limited to hundredths.	0-2	0-4	0-2	0-4
6.A.1.e Solve one-step inequalities with whole numbers using addition, subtraction, multiplication, and division and represent solutions on a number line (e.g., graph $3x > 3$).				
6.A.1.e Identify a solution to an inequality on a number line from 0 to 10, limited to whole numbers (e.g., $x < 9$, $x \geq 3$).	0-2	0-4	0-2	0-4
Applications: Students will solve authentic problems with algebraic expressions, equations, and inequalities.				
6.A.2.a Create algebraic expressions (e.g., one operation, one variable as well as multiple operations, one variable) from word phrases.				
6.A.2.a Match a simple word phrase with an input-output box.	0-2	0-4	0-2	0-4

6.A.2.b Write equations (e.g., one operation, one variable) to represent authentic situations involving non-negative rational numbers.				
6.A.2.b Solve authentic problems with addition and subtraction of decimal numbers to the hundredth, without regrouping.	0-2	0-4	0-2	0-4
6.A.2.c Write inequalities (e.g., one operation, one variable) to represent authentic situations involving whole numbers.				
6.A.2.c Identify an inequality that represents a solution to a problem involving an authentic situation (e.g., $x < 9$, $x \geq 3$).	0-2	0-4	0-2	0-4
Geometry				
Attributes: Students will identify and describe geometric attributes of two- dimensional shapes.				
6.G.1.a Identify and create nets to represent two-dimensional drawings of prisms and pyramids.				
6.G.1.a Use two-dimensional representations (e.g., drawings, nets) and/or three-dimensional models to identify cubes, cylinders, cones, rectangular prisms, pyramids, and spheres.	0-2	0-3	0-2	0-3
Measurement: Students identify geometric attributes that create two- and three-dimensional shapes in order to perform measurements and apply formulas to find area and volume.				
6.G.3.a Determine the area of quadrilaterals and triangles by composition and decomposition of these shapes, as well as applications of properties and formulas. Quadrilaterals include parallelograms and trapezoids.				
6.G.3.a Find the area of a rectangle using its whole-number side lengths.	0-2	0-3	0-2	0-3
6.G.3.b Determine the surface area of rectangular prisms and triangular prisms using nets as well as application of formulas.				
6.G.3.b Find the surface area of a rectangular prism by counting unit squares in a net of the figure.	0-2	0-3	0-2	0-3
6.G.3.c Apply volume formulas for triangular prisms.				
6.G.3.c Use the volume formula to determine the volume of a rectangular prisms, limited to whole-number side lengths.	0-2	0-3	0-2	0-3
Data				
Analyze Data and Interpret Results: Students will represent and analyze the data and interpret the results.				
6.D.2.a Represent data using dot plots, box-and-whisker plots, and histograms.				
6.D.2.a Identify characteristics (e.g., title, labels, intervals, quantities) of a histogram and identify a histogram that matches a data set.	0-2	0-3	0-2	0-3
6.D.2.b Solve problems using information presented in dot plots, box-and-whisker plots, histograms, and circle graphs.				
6.D.2.b Solve problems using information presented in histograms and circle graphs, limited to halves, thirds, and fourths of a circle.	0-2	0-3	0-2	0-3
6.D.2.c Find and interpret the mean, median, mode, and range for a set of data.				
6.D.2.c Find the mode and/or range of a set of ordered whole-number data.	0-2	0-3	0-2	0-3

6.D.2.d Compare the mean, median, mode, and range from two sets of data.				
6.D.2.d Find the median of a set of ordered whole-number data.	0-2	0-3	0-2	0-3
Probability: Students will interpret and apply concepts of probability.				
6.D.3.a Identify a list of possible outcomes for a simple event.				
6.D.3.a Identify a list of possible outcomes for a simple event, limited to four possible outcomes.	0-2	0-3	0-2	0-3
6.D.3.c Express the degree of likelihood (possible, impossible, certain, more likely, equally likely, or less likely) of simple events.				
6.D.3.c Identify the probability of an event as always, sometimes, or never.	0-2	0-3	0-2	0-3