



Opportunity Through Education

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2024+ WY-ALT Math Assessment Blueprint

ALIGNED TO 2020 WYOMING MATH EXTENDED STANDARDS

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Approved – June 16, 2022

OPERATIONAL ON WY-ALT MATH TESTS BEGINNING SCHOOL YEAR 2023-24



Gr. 3-10 WY-ALT Math Assessment

The WY-ALT Math Assessment will consist of 32 operational items, which are used to provide a score, and 8 field-test items which are not included in calculating the student's score.

Wyoming's alternate assessment, WY-ALT, is designed for a small number of students with the most significant cognitive disabilities. This assessment is part of a statewide instructionally supportive assessment system that complies with the requirements of federal accountability law and the Individuals with Disabilities Education Improvement Act of 2004 (IDEA).

The WY-ALT Assessment is aligned to the Wyoming Extended Standards and is designed to allow students to demonstrate their knowledge and skills in an appropriately rigorous assessment. The [2020 Math Extended Standards](#) are an extension of the [2018 Wyoming Math Standards](#). This WY-ALT Math Blueprint also mirrors the [2022+ WY-TOPP Math Blueprint](#) that was approved by the SBE on May 26, 2021.



Gr. 3-10 WY-ALT Math Blueprint Snapshot

% Range by Domain on the WY-ALT Math Assessment

Grade	Operations and Algebraic Thinking	Number and Operations – Base 10	Number and Operations - Fractions	Measurement and Data	Geometry
3	37-44%	0%	18-22%	18-22%	15-19%
4	18-22%	18-22%	25-29%	15-22%	15-19%
5	15-19%	25-32%	15-19%	18-22%	15-19%

% Range by Domain on the WY-ALT Math Assessment

Grade	Ratios and Proportional Relationships	The Number System	Expressions and Equations	Functions	Geometry	Statistics and Probability
6	15-19%	18-22%	25-32%	N/A	15-19%	15-19%
7	15-22%	15-19%	18-25%	N/A	18-22%	18-22%
8	N/A	15-19%	25-32%	18-22%	18-25%	15-19%

% Range by Domain on the WY-ALT Math Assessment

Grade	Number and Quantity	Algebra	Functions	Geometry	Statistics and Probability
9-10	0%	28-32%	22-25%	28-34%	15-19%



OPERATIONS AND ALGEBRAIC THINKING [37-44%]

- EE.3.OA.A.1 Identify appropriate models for multiplication of whole numbers (i.e., arrays, repeating addition, area models).
- EE.3.OA.A.2 Identify appropriate models for division of whole numbers (i.e., arrays, repeating subtraction, area models).
- EE.3.OA.A.3 Solve given multiplication and division problems within 100 using appropriate modeling strategies.
- EE.3.OA.B.5 Use an appropriate strategy to multiply or divide within 100.
- EE.3.OA.C.7 Multiply and divide with factors 1-10 using strategies.
- EE.3.OA.D.8 Solve one-step addition/subtraction and multiplication/division word problems by representation or using models.
- EE.3.OA.D.9 Identify patterns in addition and multiplication.

NUMBER AND OPERATIONS – FRACTIONS [18-22%]

Note: Use horizontal fractions and limit numbers to denominators of 2, 3, 4, 6, and 8.

- EE.3.NF.F.1 Create a whole using halves, thirds, and fourths.
- EE.3.NF.F.2 Identify fractions with a denominator of 2, 3, 4 on a number line.
- EE.3.NF.F.3 Use a visual fraction model to identify fractions with denominators of 2, 3, & 4.

MEASUREMENT AND DATA [18-22%]

- EE.3.MD.G.1 Tell or write time to the half-hour using an analog clock or digital clock.
- EE.3.MD.H.3 Use a completed picture graph or bar graph to determine which has more and which has less (e.g., colors, weather, candy, shoes, height).
- EE.3.MD.H.4 Use a ruler to measure objects to the nearest inch.
- EE.3.MD.I.5 Identify the length and width of a rectangle.
- EE.3.MD.I.6-7 Find the area of rectangles with whole number side lengths by counting unit squares of an area up to 30.

GEOMETRY [15-19%]

- EE.3.G.K.1 Identify rhombuses, rectangles, and squares.



WY- ALT Gr. 4 Math Blueprint

2020 Wyoming Math Extended Standards

OPERATIONS AND ALGEBRAIC THINKING [18-22%]

EE.4.OA.A.2-3 Solve given multiplication and division problems using appropriate strategies.

EE.4.OA.B.4 Identify the first five multiples of 1, 2, 5, and 10.

EE.4.OA.C.5 Identify patterns in addition and multiplication.

NUMBER AND OPERATIONS – BASE TEN [18-22%]

EE.4.NBT.D.1 Recognize the value of the number in the ones, tens, and hundreds places.

EE.4.NBT.D.2 Compare 2 multi-digit numbers within one thousand.

EE.4.NBT.D.3 Round two-digit numbers from 10-100, to the nearest 10.

EE.4.NBT.E.4 Add or subtract within 1000 using strategies or algorithms.

EE.4.NBT.E.5 Multiply one-digit by two-digit numbers by using arrays, equations, or models.

NUMBER AND OPERATIONS – FRACTIONS [25-29%]

NOTE: (limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100)

EE.4.NF.F.1-3 Use a visual fraction model to identify fractions with denominators of 2, 3, 4, 5, and 10.

EE.4.NF.H.5 Match a fraction with a denominator of ten with its equivalent model.

EE.4.NF.H.6-7 Identify the hundredths place.

MEASUREMENT AND DATA [15-22%]

EE.4.MD.I.1-2 Measure objects using standard units within one system of units including, but not limited to, km, m, cm; kg, g; lb., oz.; L, ml; hr., min., sec.; ft., in., gal., qt., pt., c. *Assessment boundary: limited to m, cm, lb., oz., L, ml, hr., min., sec., ft., in., gal., qt., c.*

EE.4.MD.I.3 Find the perimeter of a rectangle within the range of 4-20.

EE.4.MD.J.4 Given a line plot with whole numbers, place given half numbers to complete the line plot.

EE.4.MD.K.6 Identify the measurement of a labeled angle.

GEOMETRY [15-19%]

EE.4.G.L.1-2 Identify points, lines, and angles.



WY- ALT Gr. 5 Math Blueprint

2020 Wyoming Math Extended Standards

OPERATIONS AND ALGEBRAIC THINKING [15-19%]

EE.5.OA.A.1-2 Identify the first step in solving a two-step number sentence using parentheses.

EE5.OA.B.3.a-b Match a rule to its appropriate whole number pattern.

NUMBER AND OPERATIONS – BASE TEN [25-32%]

EE.5.NBT.C.1 Identify the tenths, hundredths, and thousandths place value.

EE.5.NBT.C.2 Order multiples of thousands ranging from 1000-9000, from least to greatest.

EE.5.NBT.C.3-4 Read and write decimals to the tenths place.

EE.5.NBT.D.5-6 Multiply and divide three-digit by one-digit numbers with no remainders.

EE.5.NBT.D.7 Add decimals in the tenths place.

NUMBER AND OPERATIONS – FRACTIONS [15-19%]

EE.5.NF.E.1-2 Add fractions with like denominators (halves, thirds, fourths).

MEASUREMENT AND DATA [18-22%]

EE.5.MD.G.1 Categorize like units of measurement including but not limited to, km, m, cm; kg, g; lb., oz.; L, ml; hr., min., sec.; ft., in., gal., qt., pt., c.

EE.5.MD.H.2 Place given wholes, halves, and fourths on a line plot.

EE.5.MD.I.3-5 Determine the volume of a rectangular prism by counting unit cubes up to a total volume of 30.

GEOMETRY [15-19%]

EE.5.G.K.3-4 Sort attributes of quadrilaterals and triangles.

WY- ALT Gr. 6 Math Blueprint

2020 Wyoming Math Extended Standards

RATIOS AND PROPORTIONAL RELATIONSHIPS [15-19%]

EE.6.RP.A.1 Describe ratio relationships between two quantities.

EE.6.RP.A.3 Understand that a percentage is a rate per 100 involving wholes, parts, and percentages.

THE NUMBER SYSTEM [18-22%]

EE.6.NS.B.1 Use a fraction model to compute the quotient of a natural number, up to 20, divided by a fraction. Limit divisors to $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$.

EE.6.NS.C.2 Divide a two-digit number, between 21 and 99, by a one-digit number without remainders.

EE.6.NS.C.3 Add and subtract two multi-digit numbers with decimals up to the hundredths place.

EE.6.NS.C.4 Find common factors and multiples using two whole numbers.

A. Find the greatest common factor of two whole numbers less than or equal to 100 with factors of 2, 5, and 10.

B. Find the least common multiple of two whole numbers each of which is less than or equal to 10.

EE.6.NS.C.5 Using a model, locate positive and negative numbers and their opposite values.

EXPRESSIONS AND EQUATIONS [25-32%]

EE.6.EE.E.1 Write a numerical expression using 2, 3, 4, and 5 as exponents.

EE.6.EE.E.3-4 When comparing two equivalent expressions, select which one property of operations is used.

EE.6.EE.F.5 Use substitution to determine whether a given natural number in a specified set is a solution to an equation.

EE.6.EE.F.6 When given a real-world problem, use a variable to represent an unknown number.

GEOMETRY [15-19%]

EE.6.G.H.1 Given formulas and a labeled diagram with height, find the area of triangles and quadrilaterals.

EE.6.G.H.2 Given a labeled diagram, find the volume of a right rectangular prism with natural number side lengths by applying the formula $V = (l)(w)(h)$.

EE.6.G.H.4 Represent three-dimensional figures using nets made up of rectangles. Given formulas, use the nets to find the surface area.

STATISTICS AND PROBABILITY [15-19%]

EE.6.SP.I.1 Recognize a statistical question related to given data represented in a chart.

EE.6.SP.J.5 Find data attributes which include outliers, clusters, sample size, mean, median, mode, and range from a visual representation of the data.

WY- ALT Gr. 7 Math Blueprint

2020 Wyoming Math Extended Standards

RATIOS AND PROPORTIONAL RELATIONSHIPS [15-22%]

EE.7.RP.A.1 Compute whole number unit rates with natural numbers.

EE.7.RP.A.3 Solve a real-world two-step problem involving percentages.

THE NUMBER SYSTEM [15-19%]

EE.7.NS.B.1 Understand that a number and its opposite sum to zero and a number plus zero does not change the value of the original number.

EE.7.NS.B.2

- A. Understand that a number and its reciprocal multiply to one and that a number multiplied by one does not change the value of the original number.
- B. Understand positive and negative sign rules for multiplying and dividing integers where zero is not the divisor.
- C. Simplify expressions using properties of multiplication of integers.
- D. Convert a rational number to a decimal.

EXPRESSIONS AND EQUATIONS [18-25%]

EE.7.EE.C.1-2 Use the relationship within addition and/or multiplication to illustrate that two expressions are equivalent.

EE.7.EE.D.3 Solve two-step real-world and mathematical addition and subtraction equations using rational numbers.

EE.7.EE.D.4 Solve one-step linear equations with one variable.

GEOMETRY [18-22%]

EE.7.G.E.1 Solve problems involving scale drawings of geometric figures, including measuring actual lengths and areas from a scale drawing of a triangle or a rectangle.

EE.7.G.E.2 Construct triangles when given side lengths or angle measures.

EE.7.G.E.3 Match a two-dimensional shape with a three-dimensional shape that shares an attribute.

EE.7.G.F.4 Given the formulas for the area and circumference of a circle, use them to solve problems.

EE.7.G.F.5 Find the missing angle when given a relationship (adjacent, supplementary, and complementary) of two angles and one of their measures.

EE.7.G.F.6 Solve mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, rectangles, cubes, rectangular prisms, and triangular prisms when given the formulas.

STATISTICS AND PROBABILITY [18-22%]

EE.7.SP.G.1 Understand how sampling different populations can produce different results.

EE.7.SP.H.3 Compare two sets of data within a single data display such as a picture graph, line plot, or bar graph, and make two inferences based on the comparison.

EE.7.SP.H.4 Given measures of center and variability (mean, median, and/or mode; and range), for numerical data, make inferences about populations.

WY- ALT Gr. 8 Math Blueprint

2020 Wyoming Math Extended Standards

THE NUMBER SYSTEM [15-19%]

EE.8.NS.A.1 Identify both terminating and repeating decimal patterns as rational.

EE.8.NS.A.2 Locate fractional and decimal representations on a number line.

EXPRESSIONS AND EQUATIONS [25-32%]

EE.8.EE.B.1 Deconstruct single-digit whole numbers with integer exponents into multiplication expressions and calculate the product.

EE.8.EE.B.2 Find the square root of perfect squares up to 100.

EE.8.EE.B.3 Translate decimal notation and scientific notation. Limit values from millions to thousandths range using single digits.

EE.8.EE.C.5 When given data, create a graph and determine if the rate of change has a positive or negative relationship.

EE.8.EE.C.6 Write a linear equation when given the slope and intercept in $y = mx + b$ form.

EE.8.EE.D.8 Given a graph of two linear equations, name the solution as an ordered pair.

FUNCTIONS [18-22%]

EE.8.F.E.1 Given a table, graph the ordered pairs and determine if it is a function.

EE.8.F.F.4 Given a linear graph, determine the slope and y-intercept.

EE.8.F.F.5 When given a graph(s), determine if the function(s) is increasing or decreasing and/or linear or nonlinear.

GEOMETRY [18-25%]

EE.8.G.G.1 Draw and transform a figure describing whether you used rotation, reflection, or translation.

EE.8.G.G.2 Use a transformation to align two objects to determine if they are congruent.

EE.8.G.G.3 When provided with a two-dimensional figure and a dilation, provide an explanation of how the figure is dilated.

EE.8.G.G.5 When given a diagram of a triangle with the measurements for 2 angles within a triangle, find the measurement of the third angle.

EE.8.G.H.6 Label the hypotenuse and legs of a right triangle.

EE.8.G.H.7 Use the Pythagorean Theorem to calculate the length of the hypotenuse when given side a and side b.

EE.8.G.I.9 Find the volume of a given picture of a cylinder with its measurements labeled and the formula.

STATISTICS AND PROBABILITY [15-19%]

EE.8.SP.J.1 Interpret scatter plots by describing the association between two quantities by form (linear/nonlinear) and direction (positive/negative).

EE.8.SP.J.2 Use a straight line within a scatter plot to suggest a linear association by judging the closeness of the data points to the line.



WY- ALT Gr. 9-10 Math Blueprint

ALGEBRA [28-32%]

Seeing Structure and Expressions

EE.A.SSE.A.1 Identify the terms, factors and coefficients related to expressions.

EE.A.SSE.A.2 Write an equivalent expression involving a variable.

EE.A.SSE.B.3 Given an equation in slope-intercept form, identify the constant as the y-intercept and coefficient as the slope of a line.

Arithmetic with Polynomials and Rational Expressions

EE.A.APR.C.1 Identify the terms, factors and coefficients related to expressions.

Creating Equations

EE.A.CED.G.1 Solve a one-step equation or inequality with one variable.

Reasoning with Equations and Inequalities

EE.A.REI.I.3 Solve a two-step, linear equation in one variable.

EE.A.REI.J.6 Locate the solution to a system of linear equations by naming the point of intersection. (e.g., a graph showing two lines that intersect.)

EE.A.REI.K.10 Identify a solution to a linear equation, represented graphically as a line. (e.g., given a line and a point on the line, identify the solution.)

FUNCTIONS [22-25%]

Interpreting Functions

EE.F.IF.A.1 Given a function table and rule, determine missing input and output values.

EE.F.IF.B.4 For a function, interpret key features of a graph and/or table, including whether the function is increasing, decreasing, or constant.

Building Functions

EE.F.BF.D.1 Match a function that describes a relationship between the input and output, within a context.

Linear, Quadratic, and Exponential

EE.F.LE.F.2 Construct a linear function using a table.

GEOMETRY [28-34%]

Congruence

EE.G.CO.A.1 Recognize perpendicular lines, parallel lines, and line segments, angles, and circles.

EE.G.CO.A.4-5 Recognize rotations, reflections, and translations.

EE.G.CO.B.6 Recognize that rigid transformations maintain congruence.

EE.G.CO.D.12 Create geometric figures using tools (e.g., ruler, protractor, compass and straightedge, string, reflective devices, paper folding, dynamic geometric software).

Similarity, Right Triangles, Trigonometry, and Circles

EE.G.C.I.1-2 Identify properties of circles, including center, diameter, radius, circumference, chord, and central angles.

Expressing Geometric Properties with Equations

EE.G.GPE.L.7 Provided formulas and measurements, calculate the perimeter and area of squares and rectangles to solve real-world problems.

Geometric Measurement and Dimension & Modeling

EE.G.GMD.M.3 Provided formulas and measurements, calculate the volume of three-dimensional objects including cubes, rectangular prisms, cylinders, spheres, or cones to solve real-world problems.

EE.G.GMD.N.4 Identify the shapes of 2-dimensional cross-sections of 3-dimensional objects.

Modeling with Geometry

EE.G.MG.O.1 Describe real-life items using geometric shapes or objects.

STATISTICS AND PROBABILITY [15-19%]

Interpreting Categorical and Quantitative Data

EE.S.ID.A.1 Match given data to its graphical representation, which may include dot plots, bar graphs, or pie charts.

EE.S.ID.A.2 Given a graph or data, determine measures of central tendency, which may include mean, median, mode, or other measures such as range or outliers.

Conditional Probability and the Rules of Probability

EE.S.CP.F.1 List the possible outcomes of an event.

EE.S.CP.F.5 Use everyday language and situations to compare when events are independent or dependent.