

Oregon Mathematics Summative Assessment

Construct-Relevant Vocabulary – Claim 1

Grade 3 Construct-Relevant Vocabulary – Claim 1

Grade 3 Construct-Relevant Vocabulary – Claim 1	
Target A: Represent and solve problems involving multiplication and division.	multiply, divide, array, liquid volume, mass, equation, product, quotient, grams, kilograms, liters
Target B: Understand properties of multiplication and the relationship between multiplication and division.	divide, equation, multiply, factor, equal, operation, product, quotient, expression
Target C: Multiply and divide within 100.	equation, multiply, divide, product, quotient, factor
Target D: Solve problems involving the four operations, and identify and explain patterns in arithmetic.	equation, multiply, divide, factor, product, quotient, subtract, add, addend, sum, difference, estimation, estimate, rounding, patterns
Target E: Use place value understanding and properties of arithmetic to perform multi-digit arithmetic.	round to the nearest, add, subtract, sum, difference, multiply, place value, addend
Target F: Develop understanding of fractions as numbers.	equal, denominator, numerator, less than, greater than, number line
Target G: Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	grams (g), kilograms (kg), liters (L), estimate, time, time intervals, minute, hour, measure, liquid volume, mass, standard units, metric
Target H: Represent and interpret data.	scaled bar graph, scaled picture graph, line plot
Target I: Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	unit square, area, square unit, plane figure, square centimeter, square meter, square inch, square feet
Target J: Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	perimeter, quadrilateral, rectangle, area, polygon, plane figure
Target K: Reason with shapes and their attributes.	divide, equal areas, rhombus, rectangle, circle, triangle, pentagon, hexagon, quadrilateral, parallelogram

Grade 4 Construct-Relevant Vocabulary – Claim 1

Target A: Use the four operations with whole numbers to solve problems.	remainder, sum, difference, quotient, product, equation, times, as much, times as many, equation
Target B: Gain familiarity with factors and multiples.	whole number, prime composite, factor, factor pair, multiple
Target C: Generate and analyze patterns.	Pattern
Target D: Generalize place value understanding for multi-digit whole numbers.	nearest ten, nearest hundred, nearest thousand, nearest ten thousand, nearest hundred thousand, ones, tens, hundreds, thousands, ten thousands, hundred thousands, millions
Target E: Use place value understanding and properties of operations to perform multi-digit arithmetic.	sum, difference, product, expression, equation, equal, partial product, quotient, partial quotient, remainder multiple
Target F: Extend understanding of fraction equivalence and ordering.	fraction, equivalent, divide, equal to, greater than, less than, digits, numerator, denominator.
Target G: Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	equation, expression, equal, fraction, model, product, numerator
Target H: Understand decimal notation for fractions, and compare decimal fractions.	equivalent, equal, decimal, kilometers, meters, centimeters, kilograms, grams, liters, milliliters, length, mass
Target I: Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	equivalent, mass, volume, interval, area, perimeter, square units
Target J: Represent and interpret data.	line plot, data set, interval, fractions, unit fractions, numerator, denominator, sum, difference, add, subtract
Target K: Geometric measurement: understand concepts of angle and measure angles.	protractor, angle, ray, intersect, one-degree angle, vertex, ray
Target L: Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Grade 5 Construct-Relevant Vocabulary – Claim 1

Target A: Write and interpret numerical expressions.	sum, quotient, factor, dividend, divisor
Target B: Analyze patterns and relationships.	coordinates, ordered pairs, pattern, sequence
Target C: Understand the place value system.	round, digit, value, greater than, less than, equal to, equivalent, expression, expanded form, hundredths, tenths, thousandths, word form
Target D: Perform operations with multi-digit whole numbers and with decimals to hundredths.	array, area model, equation, quotient, product, factor, divisor, dividend, remainder
Target E: Use equivalent fractions as a strategy to add and subtract fractions.	equivalent fractions, denominators, numerators, mixed numbers
Target F: Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	fraction, equivalent, denominator, numerator, sum, difference, product, mixed number
Target G: Convert like measurement units within a given measurement system.	mass, weight, length, time, kilometer, meter, centimeter, kilogram, gram, liter, milliliter, inch, foot, yard, mile, ounce, pound, cup, pint, quart, gallon, hour, minute, second
Target H: Represent and interpret data.	line plot, table, measurement, data set, interval, unit fraction, mixed number
Target I: Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	area array, right rectangular prism, associative property, cube, volume, length, width
Target J: Graph points on the coordinate plane to solve real-world and mathematical problems.	origin, coordinate plane, coordinate system, coordinate pair, x-coordinate, y-coordinate, first quadrant, point, x-axis, y-axis, ordered pair
Target K: Classify two-dimensional figures into categories based on their properties.	right, acute, obtuse, line segments, parallel, perpendicular, symmetrical, line of symmetry

Grade 6 Construct-Relevant Vocabulary – Claim 1

Target A: Understand ratio concepts and use ratio reasoning to solve problems.	ratio, unit rate, unit price, ordered pairs
Target B: Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	fraction, quotient, product
Target C: Compute fluently with multi-digit numbers and find common factors and multiples.	sum, difference, product, quotient, common factor, greatest common factor, common multiple, least common multiple, distributive property
Target D: Apply and extend previous understandings of numbers to the system of rational numbers.	positive, negative, integer, absolute value, coordinate, ordered pair, coordinate grid/plane, quadrant, number line, relative position, magnitude
Target E: Apply and extend previous understandings of arithmetic to algebraic expressions.	sum, product, quotient, difference, negative, term, factor, coefficient, expression, algebraic expression, numerical expression, order of operations, distributive property, associative property, commutative property
Target F: Reason about and solve one-variable equations and inequalities.	variable, equation, inequality, solution, solution set
Target G: Represent and analyze quantitative relationships between dependent and independent variables.	variable, equation, inequality, dependent variable, independent variable, relation
Target H: Solve real-world and mathematical problems involving area, surface area, and volume.	coordinate, ordered pair, coordinate plane, compose/decompose, vertices, right triangle, unit fraction, edge length, area, surface area, volume, nets, faces, edges, vertices

Grade 6 Construct-Relevant Vocabulary – Claim 1 Cont.

Target I: Develop understanding of statistical variability.

variation(variability), interquartile range, range, mean absolute deviation, center, spread, mean, median, outliers, shape (pertaining to statistics such as gap, cluster, peak, skew, bell curve and uniform distribution)

Target J: Summarize and describe distributions.

variability, interquartile range, range, mean absolute deviation, outliers, center, spread, mean, median, shape (pertaining to statistics such as gap, cluster, peak, skew, bell curve, and uniform distribution)

Grade 7 Construct-Relevant Vocabulary – Claim 1

<p>Target A: Analyze proportional relationships and use them to solve real-world and mathematical problems.</p>	<p>proportional relationship, ration, unit rate, constant of proportionality, origin, percent increase, percent decrease, percent error</p>
<p>Target B: Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.</p>	<p>rational numbers, absolute value, positive, negative, additive inverse, sum, difference, terminating decimal, repeating decimal, integer</p>
<p>Target C: Use properties of operations to generate equivalent expressions.</p>	<p>sum, difference, factor, rational coefficient, linear expression, distributive property of multiplication, associative property of addition/multiplication, commutative property of addition/multiplication</p>
<p>Target D: Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</p>	<p>rational number, equation, numeric expression, inequality, variable, constant, solution, solution set, distributive property of multiplication over addition, commutative property of addition/multiplication, associative property of addition/multiplication, additive/multiplicative identity, additive/multiplicative inverse</p>
<p>Target E: Draw, construct and describe geometrical figures and describe the relationships between them.</p>	<p>scale drawing, scale, scale factor, ratio, proportion, polygon, triangle (right, acute, obtuse, equilateral, isosceles, scalene), quadrilateral, trapezoid, parallelogram, cube, right-rectangular prism, right-rectangular pyramid, square pyramid, cone, cylinder, plane, perpendicular, parallel, base of a three-dimensional figure, horizontal slice, vertical slice</p>
<p>Target F: Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.</p>	<p>area, circumference, pi, circle, radius, diameter, supplementary angles, complementary angles, vertical angles, adjacent angles, linear pairs of angles, volume, surface area, triangles, quadrilateral, square, rectangle, parallelogram, trapezoid, cubes, right prisms</p>

Grade 7 Construct-Relevant Vocabulary – Claim 1 Cont.

Target G: Use random sampling to draw inferences about a population.

random sample, representative sample, inference, validity, variation, data sets, prediction

Target H: Draw informal comparative inferences about two populations.

numerical data distribution, center, variability, random sample, comparative inference, mean, median, mean absolute deviation, range, interquartile range

Target I: Investigate chance processes and develop, use, and evaluate probability models.

single event, compound event, probability model, tree diagram, outcome, frequencies

Grade 8 Construct-Relevant Vocabulary – Claim 1

Target A: Know that there are numbers that are not rational, and approximate them by rational numbers.	rational number, irrational number, repeating decimal, terminating decimal, square root, pi
Target B: Work with radicals and integer exponents.	rational number, irrational number, scientific notation, decimal notation, exponent, power, base, radical, square root, cube root, perfect square, perfect cube, exponent
Target C: Understand the connections between proportional relationships, lines, and linear equations.	proportional relationship, unit rate, slope, y-intercept, similar triangles, origin, coordinate plane, ordered pairs
Target D: Analyze and solve linear equations and pairs of simultaneous linear equations.	linear equation, y-intercept, slope, standard form, intersection, system, solution, coefficient, constant, ordered pair, x-coordinate, y-coordinate
Target E: Define, evaluate, and compare functions.	function, relation, linear, nonlinear, ordered pairs, coordinate grid, rate of change, y-intercept, x-intercept, slope
Target F: Use functions to model relationships between quantities.	function, slope, y-intercept, linear, nonlinear, rate of change, increasing, decreasing, constant, interval, relation
Target G: Understand congruence and similarity using physical models, transparencies, or geometry software.	angle, transformation, translation, translate, rotation, rotate, reflection, reflect, dilation, dilate, line segment, similar, congruent, parallel, transversal, exterior angle, interior angle, angle-angle criterion, scale factor, vertical angles, adjacent angle, supplementary angles, complementary angles
Target H: Understand and apply the Pythagorean theorem.	Pythagorean Theorem, leg, hypotenuse, right triangle, base
Target I: Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.	volume, cylinder, cone, sphere, radius, diameter, area, base, pi
Target J: Investigate patterns of association in bivariate data.	cluster, data, frequency, initial value, line of best fit, trend line, linear extrapolation, linear association, negative association, outlier, positive association, rate of change, relative frequency, scale, scatter plot, slope, two-way relative frequency table, variable, x-axis, y-axis, x-intercept, y-intercept

High School Construct-Relevant Vocabulary – Claim 1

Number and Quantity

Target A: Extend the properties of exponents to rational exponents.

exponent, radical, rational exponent

Target B: Use properties of rational and irrational numbers.

rational number, irrational number, real number

Target C: Reason quantitatively and use units to solve problems.

square units, cubic units, unit conversion, axis scale

Algebra

Target D: Interpret the structure of expressions.

expression, factor, difference of squares, difference of cubes, sum of cubes, quadratic expression

Target E: Write expressions in equivalent forms to solve problems.

monomial, binomial, trinomial, polynomial, maximum value, minimum value, zero (of a function)

Target F: Perform arithmetic operations on polynomials.

terms, factors, coefficients, monomials, binomials, trinomials, polynomials, exponents, expressions, distribute, distributive property, sum, difference, product, like terms

Target G: Create equations that describe numbers or relationships.

inequality, exponential, quadratic, simple rational, or exponential

Target H: Understand solving equations as a process of reasoning and explain the reasoning.

radical, rational, real, solution

Target I: Solve equations and inequalities in one variable.

quadratic formula, factoring quadratic equations, completing the square

Target J: Represent and solve equations and inequalities graphically.

linear inequality, system of equations, system of inequalities, polynomial function, rational function, absolute value function, exponential function, logarithmic function, coordinate plane (or coordinate grid), half-plane, open half-plane, closed half-plane

High School Construct-Relevant Vocabulary – Claim 1 Cont.

Functions

Target K: Understand the concept of a function and use function notation.	domain, range, function, input, output, sequence, relation, ordered pair(s)
Target L: Interpret functions that arise in applications in terms of a context.	x-intercept, y-intercept, interval, increasing interval, decreasing interval, relative maximum, relative minimum, symmetry, axis of symmetry, end behavior of a graph, limit, periodicity, average rate of change
Target M: Analyze functions using different representations.	quadratic, square root, cube root, piecewise-defined, polynomial, exponential, logarithmic, x-intercept, y-intercept, interval, relative maximum, relative minimum, symmetry, axis of symmetry, end behavior of a graph, limit, periodicity
Target N: Build a function that models a relationship between two quantities.	function(s), quantity, quantities, explicit, recursive, arithmetic sequence, geometric sequence, input, output, ordered pairs

Geometry

Target O: Define trigonometric ratios and solve problems involving right triangles.	trigonometry, trigonometric ratio, right triangle, sine, cosine, tangent, side, Pythagorean Theorem
--	---

Statistics and Probability

Target P: Summarize, represent and interpret data on a single count or measurement variable.	mean, median, interquartile range, outlier, standard deviation
---	--