Alaska Mathematics Standards
Vocabulary Word List
Grade 5

Operations and Algebraic Thinking	
addend	Any number being added.
area model	A model of multiplication that shows each place value product.
array	An arrangement of objects in equal rows.
base of an exponent	The number that is raised to a power. In 104, 10 is the base and 4 is the exponent. 10 is raised to the power of 4. (104 = 10 × 10 × 10 × 10 = 10,000)
braces	Braces can be used to indicate that the objects written between them belong to a set.
brackets	A type of grouping symbol used in pairs that tells what operation to complete first.
compose	To put together, as in numbers or shapes.
corresponding terms	Terms that are in the same position in a sequence of numbers.
decompose	To separate into components or basic elements.
difference	The amount that remains after one quantity is subtracted from another.
dividend	A quantity to be divided.
divisible	A number is divisible by another number if the quotient is a counting number without a remainder.
divisor	The quantity by which another quantity is to be divided.
equation	A statement that two mathematical expressions are equal.
evaluate	To find the value of a mathematical expression.
expression	A variable or combination of variables, numbers, and symbols that represents a mathematical relationship.
factor	An integer that divides evenly into another.
inverse operations	Operations that undo each other.
minuend	The quantity from which another quantity, the subtrahend, is to be subtracted.
multiple	The product of a whole number and any other whole number.
multiply	The operation of repeated addition of the same number.
numerical expression	A mathematical statement including numbers and operations.

Operations and Algebraic Thinking		
Order of Operations	An order, agreed on by mathematicians, for performing operations to simplify expressions.	
parentheses	Used in mathematics as grouping symbols for operations. When simplifying an expression, the operations within the parentheses are performed first.	
partial product	A method of multiplying in which the value of each digit in a factor is multiplied separately, and then the partial products are added together.	
partial quotient	A method of dividing in which multiples of the divisor are subtracted from the dividend, and then the partial quotients are added together.	
period	In a large number, periods are groups of 3 digits separated by commas or spaces.	
prime number	A whole number greater than 0 that has exactly two different factors, 1 and itself.	
product	The result of multiplication.	
Properties of Addition	Additive Identity Property of 0 (zero) number.	Adding zero to a given number gives a sum identical to the given $3 + 0 = 3$
	Associative Property of Addition sum.	Changing the grouping of 3 or more addends does not change the $(2 + 3) + 4 = 2 + (3 + 4)$
	Commutative Property of Addition $4 = 3 + 4 + 1$	Changing the order of the addends does not change the sum. $1 + 3 +$
Properties of Multiplication	Associative Property of Multiplication product.	Changing the grouping of three or more factors does not change the $(2 \times 4) \times 5 = 2 \times (4 \times 5)$
	Commutative Property of Multiplication factors does not change the product. $1 \times 4 \times 6 = 6 \times 1 \times 4$	Changing the order of the
Distributive Property of Multiplication When one of the factors of a product is a sum, multiplying each addend before adding does not change the product.		
$3 \times (4 + 5) = 3 \times 4 + 3 \times 5$		
	Multiplicative Identity Property of 1 factor.	Multiplying a factor by one gives a product identical to the given $1 \times 6 = 6$
	Zero Property of Multiplication	The product of a factor and zero is 0. $2 \times 0 = 0$

Operations and Algebraic Thinking	
reasonableness	An answer that is based on good number sense.
simplify	To express a fraction in its simplest form.
subtrahend	In subtraction, the subtrahend is the number being subtracted.
sum	The result of addition.
term	A component of a sequence. A term in a sentence is any number in that sequence.
variable	A letter or symbol that represents a number.
whole numbers	Whole numbers are 0 and the counting numbers 1, 2, 3, 4, 5, 6, and so on.

Numbers and Operations in Base Ten	
algorithm	A step-by-step method for computing.
base-ten numeral form	A common way of writing a number using digits. The value of a numeral depends on where it appears in the number. (also known as standard form)
base-ten numerals	Any of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. The symbols can represent any amount based on a place value system of grouping by tens. (also known as digits)
benchmark	A familiar number that can be used as a reference point. Benchmarks can be used to estimate decimal sums and
differences. (0, 0.25, 0.50, 0.75, and 1 are good benchmark numbers.)	
common factor	Any common factor of two or more numbers.
common multiple	Any common multiple of two or more numbers.
compatible numbers	Numbers that are easy to compute mentally and are close in value to the actual numbers. Compatible numbers can be used when estimating.
decimal fraction	A fractional number with a denominator of 10 or a power of 10. It can be written with a decimal point.
decimal point	A dot (.) separating the whole number from the fraction in the decimal notation.
decimeter	A metric unit of length. 1 decimeter = 0.1 meter, 10 decimeters = 1 meter.
dividend	A quantity to be divided.
divisible	A number is divisible by another number if the quotient is a counting number without a remainder.
divisor	The quantity by which another quantity is to be divided.
estimate	A number close to an exact amount. An estimate tells *about* how much or *about* how many.
expanded form	A way to write numbers that shows the place value of each digit.
exponent	The number that tells the number of times the base is multiplied by itself.
formula	A general mathematical rule that is written as an equation.
greater than	Greater than is used to compare two numbers when the first number is larger than the second number.
hierarchy	An organizational chart to show classification or relationships based on properties.
hundredth	One of 100 equal parts of a whole.
hundredths	In the decimal numeration system, hundredths is the name of the next place to the right of tenths.
inequality	A mathematical sentence that compares two unequal expressions using one of the symbols < or >.
inverse operations	Operations that undo each other.
less than	Less than is used to compare two numbers when the first number is smaller than the second number.
long division	A standard procedure suitable for dividing simple or complex multi-digit numbers.

Numbers and Operations in Base Ten	
lowest terms	A fraction where the numerator and denominator have no common factor greater than 1.
multiple	The product of a whole number and any other whole number.
multiply	The operation of repeated addition of the same number.
Order of Operations	An order, agreed on by mathematicians, for performing operations to simplify expressions.
partial product	A method of multiplying in which the value of each digit in a factor is multiplied separately, and then the partial products are added together.
partial quotient	A method of dividing in which multiples of the divisor are subtracted from the dividend, and then the partial quotients are added together.
pattern	A repeating or growing sequence. An ordered set of numbers or shapes arranged according to a rule.
place value	The value of the place of a digit in a number.
powers of ten	Using a base number of 10 with an exponent. Our number system is based on the powers of 10.
prime number	A whole number greater than 0 that has exactly two different factors, 1 and itself.
quotient	The result of the division of one quantity by another.
reasonableness	An answer that is based on good number sense.
remainder	The number that is left over after a whole number is divided equally by another.
rounding	A strategy to find *about* how much or how many by expressing a number closest to ten, hundred, thousand, or tenth, hundredth, thousandth, etc.
sequence	A set of numbers arranged in a special order or pattern.
simplest form	A fraction is in simplest form when the greatest common factor of the numerator and denominator is 1.
standard form	A number written with one digit for each place value. (also known as base-ten numeral form)
tenth	One of the equal parts when a whole is divided into 10 equal parts.
tenths	In the decimal numeration, tenths is the name of the place to the right of the decimal point.
thousandths	One of 1000 equal parts of a whole. Thousandths is the name of the place to the right of hundredths in the decimal numeration system.
tiling	Repeated shapes that fill a plane. The shapes do not overlap and there are no gaps.

Numbers and Operations – Fractions	
benchmark fractions	Fractions that are commonly used for estimation. A benchmark fraction helps you compare two fractions.
decimal fraction	A fractional number with a denominator of 10 or a power of 10. It can be written with a decimal point.
denominator	The number written below the line in a fraction. It tells how many equal parts are in the whole.
equivalent fractions	Fractions that have the same value (e.g. 1/2, 2/4, and 4/8 all have the same value)
fraction	A way to describe a part of a whole or a part of a group by using equal parts.
fraction bar	A bar that separates the numerator and the denominator.
fraction greater than one	A fraction with a numerator greater than its denominator.
fraction less than one	A fraction with a numerator less than its denominator.
greater than	Greater than is used to compare two numbers when the first number is larger than the second number.
less than	Less than is used to compare two numbers when the first number is smaller than the second number.
like denominators	Denominators in two or more fractions that are the same.
mixed number	A number with an integer and a fraction part.
numerator	The number written above the line in a fraction. It tells how many equal parts are described in the fraction.
simplest form	A fraction is in simplest form when the greatest common factor of the numerator and denominator is 1.
unit fraction	A fraction that has 1 as its numerator. A unit fraction names 1 equal part of a whole.
unlike denominators	Denominators that are not equal.

Measurement and Data	
acute triangle	A triangle with no angle measuring 90º or more.
area	The measure, in square units, of the interior region of a two-dimensional figure or the surface of a three-dimensional figure.
attribute	A characteristic of an object such as color, shape, size, etc.
bar graph	A graph that uses the height or length of rectangles to compare data.
bar model	A model that uses bars to represent known and unknown quantities and the relationship between these quantities.
capacity	Capacity refers to the amount of liquid a container can hold.
centimeter (cm)	A metric unit of length equal to 0.01 of a meter. 100 cm = 1 m
cubic unit	A unit such as a cubic meter to measure volume or capacity.
cup	A customary unit of capacity. 1 cup = 8 fluid ounces.
customary system	A system of measurement used in the U.S. The system includes units for measuring length, capacity, and weight.
data	Information, especially numerical information. Usually organized for analysis.
decimeter	A metric unit of length. 1 decimeter = 0.1 meter, 10 decimeters = 1 meter.
dekameter	A metric unit of length. 1 dekameter = 10 meters
elapsed time	The amount of time that has passed.
fluid ounce	A customary unit of capacity. 8 fluid ounces = 1 cup
foot	A customary unit of length. 1 foot = 12 inches.
gallon	A customary unit of capacity. 1 gallon = 4 quarts.
gram	The standard unit of mass in the metric system. 1,000 grams = 1 kilogram.
height	A perpendicular line segment from the base to the top of the figure.
inch	A customary unit of length. 12 inches = 1 foot
interval	The distance between the values on the scale of a graph.
kilogram	A metric unit of mass equal to 1000 grams.
kilometer	A metric unit of length equal to 1000 meters.
line graph	A graph used to show how data changes over time with points connected by line segments.
line plot	A diagram showing frequency of data on a number line.

Measurement and Data

liter	The basic unit of capacity in the metric system. 1 liter = 1,000 milliliters.
mass	The amount of matter in an object. Usually measured by comparing with an object of known mass. While gravity influences weight, it does not affect mass.
meter	A standard unit of length in the metric system.
metric system	A system of measurement based on tens. The basic unit of capacity is the liter. The basic unit of length is the meter. The basic unit of mass is the gram.
mile	A customary unit of length. 1 mile = 5, 280 feet.
milligram	A metric unit of weight. 1,000 milligrams = 1 gram.
milliliter	A metric unit of capacity. 1,000 milliliters = 1 liter.
millimeter	A metric unit of length. 1,000 millimeters = 1 meter.
number line	A diagram that represents numbers as points on a line.
ounce (oz)	A customary unit of weight equal to one sixteenth of a pound. 16 ounces = 1 pound
pint	A customary unit of capacity. 1 pint = 2 cups
pound	A customary unit of weight. 1 pound = 16 ounces.
quart	A customary unit of capacity. 1 quart = 2 pints or 1 quart = 4 cups
scale	A series of numbers at regular intervals that help label a graph.
scaling	To increase or decrease proportionately in size.
square unit	A unit, such as square centimeter or square inch, used to measure area.
ton	A customary unit of weight. 1 ton (T) = 2,000 pounds. A metric ton (t) is a unit of mass equal to 1,000 kilograms (about 2,200 pounds).
unit cube	A precisely fixed quantity used to measure volume.
volume	The number of cubic units it takes to fill a figure.
weight	The measure of how heavy something is.
yard (yd)	A customary unit of length. 1 yard = 3 feet or 36 inches.

Geometry	
axis (plural – axes)	A reference line from which distances or angles are measured in a coordinate grid.
base of a solid figure	A base of a solid figure is usually thought of as a face upon which it can "sit." Most solid figures have more than one base.
congruent	Having exactly the same shape and size.
coordinate grid	A two-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes. (also known as a coordinate plane or coordinate system)
coordinate plane	A two-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes. (also known as coordinate grid or coordinate system)
coordinate system	A two-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes. (also known as a coordinate grid or coordinate plane)
coordinates	An ordered pair of numbers that identify a point on a coordinate plane.
cube	A rectangular solid having 6 congruent square faces.
decagon	A polygon with 10 sides.
decagonal prism	A prism whose two bases are decagons.
diagonal	A line that goes through vertices of a polygon that are not next to each other.
equiangular triangle	A triangle with all equal angles (60º).
equilateral triangle	A triangle with all sides the same length.
heptagon	A polygon with 7 sides.
hexagon	A polygon with 6 sides.
hexagonal prism	A prism whose two bases are hexagons.
intersect	To meet or cross.
isosceles triangle	A triangle that has exactly 2 equal sides.
lateral face	The face of a prism or pyramid that is not a base.
length	How long something is. The distance from one point to another. Length is measured in units such as inches, feet, centimeters, etc. One dimension of a two- or three- dimensional figure.
line of symmetry	A line that divides a figure into two congruent halves that are mirror images of each other.
line symmetry	What a figure has if it can be folded in half and its two parts match exactly.
nonagon	A polygon with 9 sides.
obtuse triangle	A triangle that has an angle greater than 90° (obtuse angle).
octagon	A polygon with 8 sides.

Geometry	
octagonal prism	A prism whose bases are octagons.
ordered pair	A pair of numbers that gives the coordinates of a point on a grid in this order (horizontal, coordinate, vertical coordinate).
origin	The intersection of the x- and y- axes in a coordinate plane, described by the ordered pair (0, 0).
parallel lines	Lines that are always the same distance apart. They do not intersect.
parallelogram	A quadrilateral with 2 pairs of parallel and congruent sides.
pentagon	A polygon with 5 sides.
pentagonal prism	A prism whose two bases are pentagons.
pentagonal pyramid	A pyramid that has a pentagonal base.
perpendicular	Form right angles.
perpendicular lines	Two intersecting lines that form right angles.
plane	A flat surface that extends infinitely in all directions.
polygon	A closed plane figure made by line segments.
polyhedron	A three-dimensional figure in which all the faces are polygons. Polyhedrons have no curved surfaces.
prism	A three-dimensional figure that has two congruent and parallel faces that are polygons. The remaining faces are parallelograms.
pyramid	A polyhedron whose base is a polygon and whose other faces are triangles that share a common vertex.
quadrant	A section of a coordinate grid that is separated by the x-axis and y-axis.
quadrilateral	A polygon with 4 sides.
rectangle	A quadrilateral with 2 pairs of congruent, parallel sides and 4 right angles.
regular polygon	A polygon with all sides the same length and all angles the same measure.
rhombus	A quadrilateral with all 4 sides equal in length.
right rectangular prism	A prism with 6 rectangular faces where the lateral edge is perpendicular to the plane of the base.
right triangle	A triangle that has one 90° angle.
scalene triangle	A triangle that has no equal sides.
solid figure	Three-dimensional figure that has length, width, and height.
square	A parallelogram with 4 equal angles AND 4 equal sides.
three-dimensional figure	A solid figure that has length, width, and height.
trapezoid	A quadrilateral with 1 pair of parallel sides and 1 pair of sides that are not parallel.

Geometry	
two-dimensional figure	A plane, flat figure that has length and width.
vertex (plural - vertices)	The point at which two line segments, lines, or rays meet to form an angle.
x-axis	The horizontal axis in a coordinate plane.
x-coordinate	In an ordered pair, the value that is always written first.
y-axis	The vertical axis in a coordinate plane.
y-coordinate	In an ordered pair, the value that is always written second.

Illustrated Mathematics Dictionary – Math if Fun Definitions