

Alaska Mathematics Standards

Vocabulary Word List

Grade 3



Operations and Algebraic Thinking	
add	To combine; put together two or more quantities.
addend	Any number being added.
arithmetic patterns	A sequence of numbers in which the difference between any two consecutive numbers is the same.
array	An arrangement of objects in equal rows.
compare	To decide if one number is greater than, less than, or equal to another number.
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.
compose	To put together smaller numbers to make larger numbers. To put together 2 or more shapes to create a new shape.
counting number	A whole number that can be used to count a set of objects. Counting numbers do not include 0. (e.g., 1, 2, 3, 4...)
decompose	To separate a number into 2 or more parts.
difference	The amount that remains after one quantity is subtracted from another.
digit	Any of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9. (also known as base-ten numerals)
divide	To separate into equal groups and find the number in each group or the number of groups.
dividend	A number that is divided by another number.
divisor	The number by which another number is divided.
equal	Having the same value.
equation	A number sentence with an equal sign. The amount on one side of the equal sign has the same value as the amount on the other side.
estimate	A number close to an exact amount. An estimate tells <i>about</i> how much or <i>about</i> how many.
even number	An even number can be shown as 2 equal parts. An even number has 0, 2, 4, 6, or 8 in the ones place)
expression	A mathematical phrase without an equal sign.

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Operations and Algebraic Thinking

fact family	A group of related facts that use the same numbers. (also known as related facts)		
factor	The whole numbers that are multiplied to get a product.		
inverse operations	Operations that undo each other.		
multiple	The product of a whole number and any other whole number.		
multiply	The operation of repeated addition of the same number.		
odd number	An odd number <i>cannot</i> be shown as two equal parts. An odd number has 1, 3, 5, 7, or 9 in the ones place.		
Order of Operations	A set of rules that tells the order in which to compute.		
parentheses	Used in mathematics as grouping symbols for operations. When simplifying an expression, the operations within the parentheses are performed first.		
partitive division	A division problem where the number of objects in each group is unknown.		
pattern	A repeating or growing sequence. An ordered set of numbers arranged according to a rule.		
product	The answer to a multiplication problem.		
Properties of Addition	Additive Identity Property of 0 (zero)	Adding zero to a given number gives a sum identical to the given number.	$3 + 0 = 3$
	Associative Property of Addition	Changing the grouping of 3 or more addends does not change the sum.	$(2 + 3) + 4 = 2 + (3 + 4)$
	Commutative Property of Addition	Changing the order of the addends does not change the sum.	$1 + 3 + 4 = 3 + 4 + 1$
Properties of Multiplication	Associative Property of Multiplication	Changing the grouping of three or more factors does not change the product.	$(2 \times 4) \times 5 = 2 \times (4 \times 5)$
	Commutative Property of Multiplication	Changing the order of the factors does not change the product.	$1 \times 4 \times 6 = 6 \times 1 \times 4$

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Operations and Algebraic Thinking

Properties of Multiplication continued	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	Multiplying a factor by one gives a product identical to the given factor.	$1 \times 6 = 6$
	Zero Property of Multiplication	The product of a factor and zero is 0.	$2 \times 0 = 0$
quotative division	A division problem where the number of groups is unknown.		
quotient	The answer to a division problem.		
reasonableness	An answer that is based on good number sense.		
regroup	To rearrange the formation of a group.		
related facts	Related addition and subtraction facts or related multiplication and division facts. (also known as fact family)		
repeated addition	Adding equal groups of objects to find the total amount of objects.		
repeated subtraction	Subtracting equal groups to find the total amount of groups.		
round a whole number	To find the nearest ten, hundred, thousand, (and so on).		
skip count	Counting by a given number greater than 1.		
subtract	An operation that gives the difference between two numbers. Subtraction can be used to compare two numbers, or to find out how much is left after some is taken away.		
sum	The answer to an addition problem.		
unknown	A letter, box or ? that represents unknown values ($3 \times 4 = ?$)		
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.		

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Numbers and Operations - Fractions

denominator	The number written below the line in a fraction. It tells how many equal parts are in the whole.
difference	The amount that remains after one quantity is subtracted from another.
eighths	The parts you get when you divide something into eight equal parts.
equal	Having the same value.
equal groups	Groups that contain the same number of objects. Whenever you divide, you separate items into equal groups.
equal parts	Parts of an object or group that have divided equally into pieces.
equivalent fractions	Fractions that have the same value (e.g. $\frac{1}{2}$, $\frac{2}{4}$, and $\frac{4}{8}$ all have the same value)
fourths	The parts you get when you divide something into 4 equal parts.
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.
halves	The parts you get when you divide something into 2 equal parts.
less than	Less than is used to compare two numbers when the first number is smaller than the second number.
numerator	The number written above the line in a fraction. It tells how many equal parts are described in the fraction.
order	A sequence or arrangement of things. To order fractions, compare to fractions at a time.
partition	An action to divide shapes into smaller parts.
reasonableness	An answer that is based on good number sense.

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Measurement and Data	
a.m.	A time between 12:00 midnight and 12:00 noon.
analog clock	A clock that shows the time by the positions of the hour and minute hands.
area	The measure, in square units, of the inside of a plane figure.
area model	A model of multiplication that shows the product within a rectangle drawing.
axis	The two sides of a graph.
bar graph	A graph that uses 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.
centimeter	A metric unit of length equal to 0.01 of a meter. $100 \text{ cm} = 1 \text{ m}$
column	A vertical arrangement of numbers or information in an array or table.
coordinate	A position on a graph.
customary system	A system of measurement used in the U.S. The system includes units for measuring length, capacity, and weight.
data	A collection of information.
digital clock	A clock that shows the time with numbers of hours and minutes, usually separated with a colon (:)
elapsed time	The amount of time that has passed. (also known as time interval)
experiment	An activity that has two or more possible results. (e.g. pulling marbles from a bag)
foot	A customary unit of length. $1 \text{ foot} = 12 \text{ inches}$.
frequency table	A table that uses numbers to record data.
gram	The standard unit of mass in the metric system.
half hour	A unit of time equal to 30 minutes.

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Measurement and Data	
horizontal bar graph	A graph that uses length of rectangles to compare data.
hour	A unit of time. 1 hour = 60 minutes 24 hours = 1 day
inch	A customary unit of length. 12 inches = 1 foot
interval	The distance between two points.
key	A part of a map, graph, or chart that explains what the symbols mean.
kilogram	A metric unit of mass equal to 1000 grams.
length	How long something is. The distance from one point to another. Length is measured in units such as inches, feet, centimeters, etc.
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.
midnight	12:00 at night.
minute	A unit used to measure short amounts of time; there are 60 minutes in one hour.
noon	12:00 in the day.
number line	A diagram that represents numbers as points on a line.
ordered pair	Two numbers written in a certain order, usually with parentheses (4, 5)
p.m.	The time between 12:00 noon and 12:00 midnight.
perimeter	The distance around a figure.

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Measurement and Data

picture graph	A graph that uses pictures or symbols to show data.
quarter hour	A unit of time worth 15 minutes.
row	A horizontal arrangement of numbers or information in an array or table.
scale	A series of numbers at regular intervals that help label a graph.
square unit	A unit, such as square centime or square inch, used to measure area.
survey	A way to gather data by asking questions.
tally table	A table that uses tally marks to record data.
tiling	A pattern of shapes repeated to fill a plane. The shapes do not overlap and there are no gaps.
time interval	A duration of a segment of time. (also known as elapsed time)
Venn Diagram	A drawing with circles or rings to show how sets of objects are related.
vertical bar graph	A graph that uses height of rectangles to compare data.
volume (liquid)	The number of cubic units it takes to fill a figure.

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Geometry

angle	Two rays that share an endpoint.
attribute	A characteristic of an object such as color, shape, size, etc.
circle	A shape with no sides and no vertices.
closed shape	A shape that begins and ends at the same point.
decagon	A polygon with 10 sides.
endpoint	A point at either end of a line segment, or a point at one end of a ray.
hexagon	A polygon with 6 sides.
intersecting lines	Lines that cross at a point.
line	A set of connected points continuing without end in both directions.
line plot	A diagram showing frequency of data on a number line.
line segment	A part of a line with two endpoints.
net	A pattern that you can cut and fold to make a model of a solid shape.
open shape	A figure that does not begin and end at the same point.
parallel lines	Lines that are always the same distance apart.
parallelogram	A quadrilateral with 2 pairs of parallel and congruent sides.
pentagon	A polygon with 5 sides.
perpendicular lines	Two intersecting lines that form right angles.
plane shape	A shape that is two-dimensional and is formed by curves, line segments, or both.
point	The exact location in space represented by a dot.

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Geometry

polygon	A closed plane shape made by line segments.
quadrilateral	A polygon with 4 sides.
ray	A part of a line that has one end point and goes on forever in one direction.
rectangle	A quadrilateral with 2 pairs of equal, parallel sides and 4 right angles.
rectilinear figure	A polygon where all angles are right angles.
rhombus	A 4-sided flat shape with straight sides where all sides are of equal length.
right angle	An angle that forms a square corner.
rotational turn	A circular movement around a fixed point.
side	One of the line segments that makes a polygon.
slide-translation	To move a figure with rotating or flipping and the shape still looks exactly the same but in a different place.
square	A parallelogram with 4 equal angles AND 4 equal sides.
trapezoid	A quadrilateral with 1 pair of parallel sides and 1 pair of sides that are not parallel.
triangle	A polygon with 3 sides and 3 angles.
two-dimensional shape	A plane, flat shape that has length and width.
vertex (plural - vertices)	The point where sides of a shape or angles meet.
width	One dimension of a two- or three- dimensional figure.
Illustrated Mathematics Dictionary – www.mathisfun.com/definitions.com	