



**THIRD SPACE
LEARNING**

The Ultimate Math Vocabulary List

The 150 Terms Every Student
Needs to Know by the
End of 5th Grade

Grades 3-5

How to Use This Resource

An essential building block in students' understanding of math is their knowledge and correct use of the key words and terminology. On the following pages, you'll find the key 150 terms your students should be able to understand and explain.

To really embed their knowledge of math terminology, however, we recommend you actually encourage them to build their own math vocabulary list. You can use our list or parts of our list as a prompt to get them started or hand it out in full and encourage them to add to it.

Students are much more likely to remember the meanings and terms of mathematical words and phrases if they have constructed the pages for themselves. They can choose vocabulary which reflects their age range, and once made, the dictionary can be accessed and used frequently during math activities.

Math Vocabulary List

Use the following A-Z of key concepts to help you get started creating your own dictionary of terms:

A

Concept	Definition	My Notes
Acute angle	An angle that measures less than 90 degrees	
Acute triangle	A triangle with 3 acute angles	
Add	To combine or join together	
Addend	Any of the numbers added together to find a sum	
Algorithm	A step-by-step procedure used to calculate an answer	
Angle	A shape formed by two lines or rays diverging from a point (the vertex)	
Area	The size of a surface (a 2D shape) measured in square units Area = length x width	
Area model	A model used for multiplication or division made up of a rectangle The length and width represent the factors and the area represents the product	
Array	An arrangement of objects, pictures, or numbers in columns and rows	
Ascending/Descending order	The arrangement of numbers from smallest to largest (ascending) or largest to smallest (descending)	
Associative property	The sum or product of three or more numbers remains the same no matter how the numbers are grouped. $5 \times (2 \times 3) = (5 \times 2) \times 3$	
Attributes	The characteristics or properties of a shape or an object	
Axis	The horizontal number line (x-axis) and the vertical number line (y-axis) on the coordinate plane or on the sides of a graph	

B

Concept	Definition	My Notes
Bar graph	A graph with rectangular bars showing how large each value is. The bars can be horizontal or vertical	
Base	The bottom of a shape, solid, or three dimensional object. Its area is found by multiplying length times width	
Benchmark	A number or numbers that help to estimate a value (examples: 10, 100, $\frac{1}{2}$)	
Bisect	To divide into two equal parts	

C

Concept	Definition	My Notes
Capacity	The amount of liquid or air a container can hold when filled	
Classify	Put things into groups (classes) based on a property	
Closed figure	A shape that begins and ends at the same point (example: a triangle, a square)	
Commutative property	The sum or product of two or more numbers does not change if the order of the numbers is changed. $3 + 2 = 2 + 3$	
Compare	To identify similarities or differences among numbers or objects	
Compose/Decompose	To compose is to put a number together using other numbers; To decompose is to separate a number into parts using other numbers or to break a number apart	
Congruent	Equal in size and shape	
Conversion	To change a value from one unit of measurement to another (example: inches to feet)	
Coordinates	An ordered pair of numbers used to locate a point on a grid (the coordinate plane)	
Coordinate plane	A plane determined by a horizontal number line (x-axis) and a vertical number line (y-axis) intersecting at a point called the origin	
Customary	(also called standard) U.S. measurement system	

D

Concept	Definition	My Notes
Data	Information in numerical form that can be processed and analyzed	
Decimal	A number that consists of a whole and a fractional part (example: 5.34)	
Decimal fraction	A fraction whose denominator is a power of 10 (example: $6/10 = 0.6$)	
Degree	A unit for measuring angles and temperature	
Denominator	The bottom number of a fraction which tells the number of equal-sized pieces in the whole	
Difference	The result of subtracting one number from another	
Diagram	A drawing used to describe something	
Digit	Any number from 0 to 9	
Dimensions	The measurements of a shape (example: length, width, height)	
Distributive property	Multiplying a sum by a given number is the same as multiplying each addend separately and then adding the products. $6 \times 12 = (6 \times 10) + (6 \times 2) = 60 + 12 = 72$	
Dividend	In division, the number being divided or shared out	
Division	Sharing a number into equal groups and finding the number of groups or the number of items in each group	
Divisor	In division, the number that divides into another number	

E

Concept	Definition	My Notes
Edge	The intersection of two faces of a three-dimensional object	
Elapsed time	The amount of time passed since an event started	
Estimate	To find a value that is close enough to the actual value	
Equation	A mathematical sentence in which one part is the same or equal to the other part (example: $3 + 5 = 8$)	
Equilateral triangle	A triangle with congruent sides and angles	
Equivalent fraction	Fractions that name the same amount or number but look different (example: $\frac{2}{3}$ and $\frac{6}{9}$)	
Evaluate	Find the numerical value of a mathematical expression	
Even/Odd number	An even number can be evenly divided by 2 An odd number will leave a remainder of 1 when divided by 2	
Expanded form	A way of writing numbers that shows place value $325 = (3 \times 100) + (2 \times 10) + (5 \times 1)$	
Exponent	The small number placed to the upper right of a number indicating how many times that number is multiplied by itself. $2^3 = 2 \times 2 \times 2 = 8$	
Expression	A mathematical phrase that contains numbers and symbols; 3×6	

F

Concept	Definition	My Notes
Face	A plane surface of a three-dimensional object	
Fact family	A set of related math facts, such as $3 \times 5 = 15$, $5 \times 3 = 15$, $15 \div 3 = 5$, $15 \div 5 = 3$	
Factor	One of the numbers multiplied to find a product	
Factor pair	A pair of numbers that when multiplied give a product (example: 3 and 5 is one factor pair of 15)	
Figure	A closed two- or three-dimensional shape	
Formula	An expression or equation that expresses the relationship between certain quantities. (example: $\text{Area} = \text{length} \times \text{width}$)	
Fraction	A part of a whole number	

G

Concept	Definition	My Notes
Geometry	A branch of mathematics that deals with shapes, sizes, angles, and dimensions of objects	
Gram	A metric unit of mass	
Greater than/Less than	An inequality between numbers; represented by the symbols $>$ (greater than) and $<$ (less than)	
Grid	A coordinate grid that locates a point by its distance from the intersection of two straight lines	

H

Concept	Definition	My Notes
Half	One of two parts	
Height	The vertical distance from the base of an object to its top	
Heptagon	A 2D shape with seven sides and angles	
Hexagon	A 2D shape with 6 sides and angles	
Horizontal/Vertical	Horizontal describes a line or plane parallel to the earth's surface; Moving left/right. Vertical describes going up/down or top/bottom.	
Hundredth	One part when a whole is divided into 100 equal parts; the second place value after the decimal point	

I

Concept	Definition	My Notes
Identity property	Any number multiplied by 1 is itself	
Improper fraction	A fraction whose numerator is equal to or greater than its denominator.	
Integer	A negative or positive whole number	
Interior angles	Angles that lie within a polygon	
Intersection/Intersecting lines	The point or line where two lines or two faces meet; lines that cross	
Intervals	Distance between the numbers on the scale of a graph	
Isosceles triangle	A triangle which has two equal sides of equal length	

K

Concept	Definition	My Notes
Key	Provides the meaning of the symbols used in a graph or map.	
Kilogram	A metric unit of mass	
Kite	A quadrilateral that has two adjacent pairs of sides that are equal in length and at least one pair of opposite angles are equal	

L

Concept	Definition	My Notes
Length	The distance from end to end. Customary units used to measure length are inches, feet, centimeters, meters, and yards	
Like denominator (common denominator)	Having the same denominator	
Like numerator (common numerator)	Having the same numerator	
Line	A straight figure which has length but no width and is endless in both directions	
Line plot	A graph that shows frequency of data along a number line, usually plotted with an X	
Line segment	A part of a line that connects two points	
Line of symmetry	The line that divides a shape or an object into two equal and symmetrical parts	
Liter	A metric unit of volume used to measure liquid	

M

Concept	Definition	My Notes
Mass/weight	A measure of how much matter is in an object; measured by ounces, pounds, grams, kilograms, etc.	
Metric system	Measurement system used throughout the world that measures lengths in millimeters, centimeters, meters, and kilometers; capacity in liters and milliliters; mass in grams and kilograms; and temperature in degrees Celsius	
Midpoint	A point that divides a line segment in half	
Mixed number	A number that is made up of a whole number and a fraction (example $8\frac{2}{3}$)	
Multiple	The result of multiplying a whole number by other whole numbers. For example, the multiples of 5 are 5, 10, 15, 20, 25...	
Multiplication	A mathematical operation in which a number is added to itself a specific number of times	

N

Concept	Definition	My Notes
Number line	A visual representation of numbers on a straight line	
Numerator	The top number of a fraction which tells the number of equal-sized parts of the whole	

O

Concept	Definition	My Notes
Obtuse	An angle measuring greater than 90 degrees but less than 180 degrees	
Obtuse triangle	A triangle with an obtuse angle and two acute angles	
Octagon	A polygon with eight sides and eight angles	
Ordered pair	A pair of numbers used to locate a point on a coordinate plane; the first numbers tells how far to move horizontally and the second number tells how far to move vertically	
Origin	The starting point on a coordinate grid	

P

Concept	Definition	My Notes
Parallel lines	Lines with no common points and always the same distance apart	
Parallelogram	A quadrilateral with opposite sides equal and parallel and the opposite angles are equal in size	
Partial product/ Partial quotient	A part of the answer to a multiplication or division problem which are added together to get the total	
Partition	To equally divide into parts or shares	
Pattern	A set of numbers or objects that can be described by a specific rule	
Perimeter	Distance around a figure or object	
Perpendicular lines	Lines that intersect at a 90 degree angle	
Pictograph/picture graph	A type of graph using pictures to represent data	
Place value	The value of a digit depending on its place in a number	
Plane	A flat, two-dimensional surface	
Polygon	A many-sided shape	
Power	Exponent; the number of times a base number is multiplied by itself	
Prime number/ Composite Number	A prime number has exactly two factors; 1 and itself; A composite number has more than two factors	
Product	The result when two numbers are multiplied	
Protractor	Tool for measuring angles	

Q

Concept	Definition	My Notes
Quadrant	A region defined by the two axes (x-axis and y-axis) of a coordinate plane	
Quadrilateral	A closed 2D shape with 4 sides	
Quarter	One of four parts	
Quotient	The result when two numbers are divided	

R

Concept	Definition	My Notes
Ray	A line that starts at a point and goes off in one direction to infinity	
Rectangular prism	A solid 3D object which has six faces that are rectangles	
Rectilinear	A figure whose edges meet at right angles	
Remainder	The amount left over after dividing a number	
Rhombus	A parallelogram with congruent sides. Opposite sides are equal in length	
Right angle	An angle that measures exactly ninety degrees	
Right triangle	A triangle that has one right angle, and two acute angles.	
Rounding	An approximation used to express a number in a more convenient way	

S

Concept	Definition	My Notes
Scale (graphs)	The horizontal scale across the bottom and vertical scale along the side of a graph that tells how much/many	
Scale (multiplication)	Compare the size of a product to the size of one factor on the basis of the size of the other factor	
Scalene triangle	A triangle with three sides of different length and no equal sides	
Side	A line segment of a many-sided figure	
Solid figure	A 3D figure with depth, width, and height	
Straight angle	An angle that measures exactly 180 degrees	
Strategy	A plan to find an answer or solve a problem that makes sense	
Square unit	The area of a square whose sides measure 1 unit; used to measure area	
Sum	The result when two numbers are added	
Symmetry	An object is symmetrical when one half is a mirror image of the other half	

T

Concept	Definition	My Notes
Tenth	One part when a whole is divided into 10 equal parts; the first place value after the decimal point	
Thousandth	One part when a whole is divided into 1,000 equal parts; the third place value after the decimal point	
Three-dimensional shape	A shape with three dimensions - length, width, and height	
Tiling	Covering a plane using tiles with no gaps or overlaps	
Trapezoid	A quadrilateral with one set of parallel sides	
Triangle	A three-sided shape	
Two-dimensional shape	A flat shape with two dimensions; circle, square, triangle, rectangle, hexagon, trapezoid, quadrilateral, rhombus, parallelogram	

U

Concept	Definition	My Notes
Unit fraction	A fraction with a numerator of one	
Unknown	The quantity you need to find in a math problem	

V

Concept	Definition	My Notes
Venn diagram	A graphic organizer for comparison and contrast	
Vertex	Point at which two line segments meet to form an angle	
Volume	The measure of the amount of space inside a solid figure measured in cubic units. $\text{Volume} = \text{length} \times \text{width} \times \text{height}$	

Z




Concept	Definition	My Notes
Zero property of multiplication	Any number multiplied by zero equals zero	

Do you have a group of students who need a boost in math?

Each student could receive a personalized lesson every week from our specialist one-on-one math tutors.

- ✓ Differentiated instruction for each student
- ✓ Aligned to your state's standard
- ✓ Scaffolded learning to close gaps

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