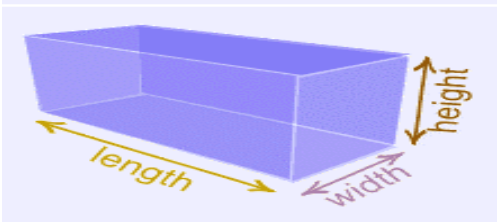
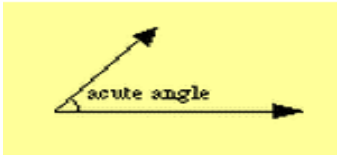
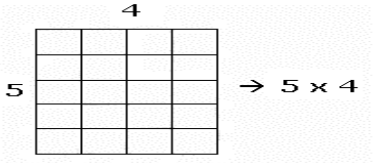
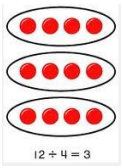
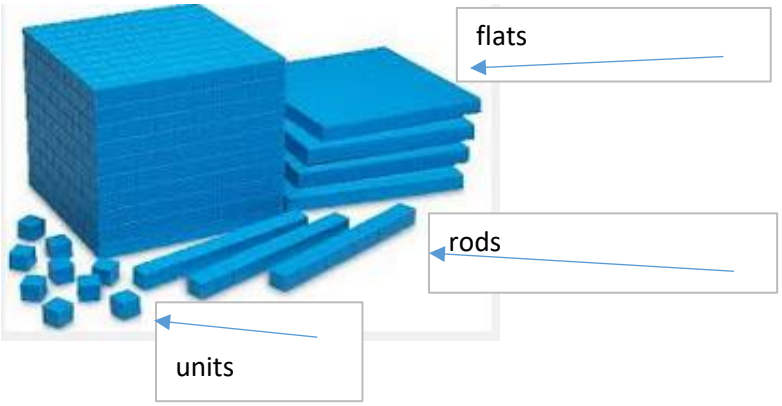
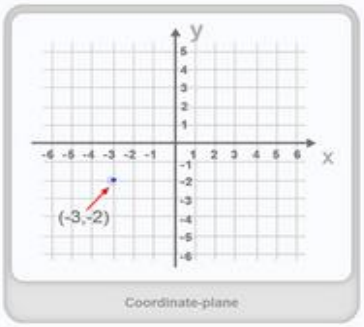
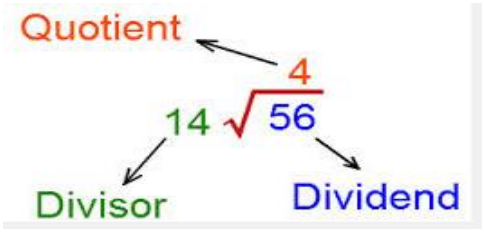
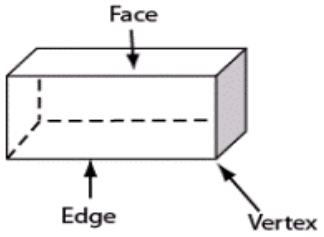
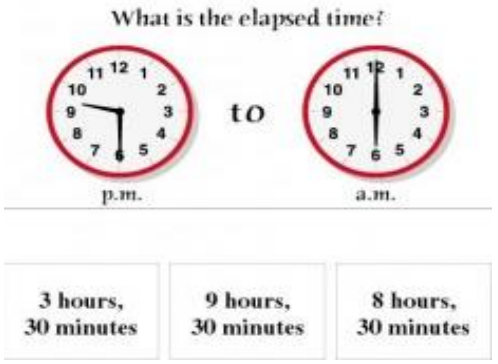
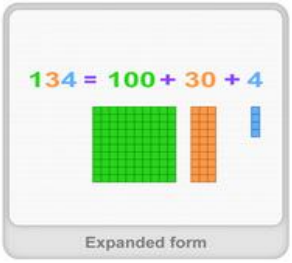
Term	Definition	Example
3-D shapes or (3 dimensional)	an object that has height, width, and depth, like any object in the real world.	
acute angle	an angle that is less than 90°	
addend	a number that is added to another	Ex. 3 + 2 = 5
algorithm	a set of instructions used to solve a problem or obtain a desired result	384 × 56 2304 1920 21504
area of a rectangle	The formula used to find out how much space a rectangle or square takes up	Formula: Area = Length x Width or A = L x W
array	an arrangement of objects, pictures, or numbers in columns and rows. Used to represent multiplication and division concepts.	 

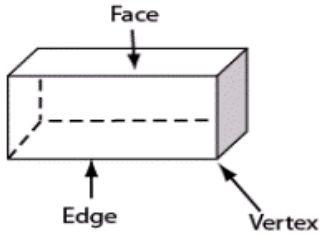
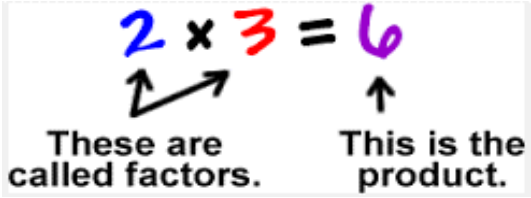
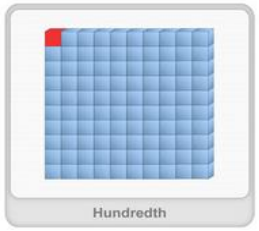
Associative Property of Addition	When adding 3 or more numbers, the idea that changing the grouping of the addends does not change the sum.	(3 + 2) + 5 is the same as 3 + (2 + 5) *Always add what is in parenthesis first; different grouping does not change the sum.*
base ten block	math tools used by students to learn basic math concepts including addition, subtraction, number sense, place value and counting. The student can hold and move the blocks in different ways to express numbers and patterns	
benchmark fraction	Commonly used fractions that you can judge other numbers against	Ex. Halves, thirds and fourths 1/2, 1/3, 2/3, 1/4, 3/4
Commutative Property of Addition	The addends can be in any order and still equal the same sum.	Ex. 4 + 3 = 3 + 4 *You can switch the two numbers around and still get the same answer.*
composite	a number that has more than one factor.	Ex. 12 is composite. It has factors of 1, 2, 3, 4, 6, and 12.

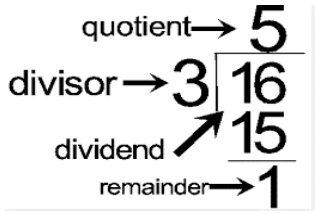
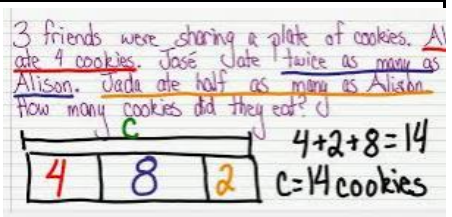
coordinate plane (grid)	a 2 dimensional surface by two intersecting and perpendicular number lines on which points are plotted and located by their x and y coordinates.	
Customary Measurement	The system of measurement used in the United States	Examples include: inches, feet, miles, cup, pint, quart, gallon, ounce, pound
data	a compilation of facts, such as values or measurements	
decimal place value	The worth of a number that is less than one whole, represented as a decimal	Ex. 0.647 is read as six hundred forty-seven thousandths *the 6 is in the tenths place, the 4 is in the hundredths place and the 7 is in the thousandths place*
decompose	to separate into basic elements	5 = 4 + 1, 2 + 3 *or* 10 = 1 + 9, 2 + 8, 3 + 7, 4 + 6 *an elementary student could be asked to find all the ways to make 6. They would list 1+5, 2+4, 3+3.*

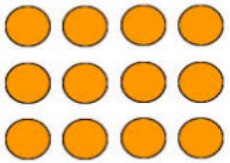
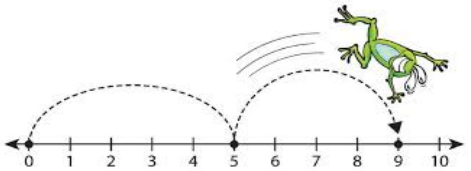
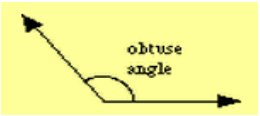
denominator	The bottom number in a fraction; tells how many pieces are in the whole	Ex. ⅓ 3 is the denominator; it would take 3 pieces to make 1 whole. ⅓ + ⅓ + ⅓ = 1 whole; 3/3
difference	The answer to a subtraction problem	Ex. 10 - 7 = 3 *The difference in this problem is 3.*
digit	any of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9	Ex. The number 647.09 has *5 digits*
Distributive Property	This property states that multiplying a sum by a number gives the same result as multiplying each addend by the number and then adding the products together.	Ex. 3 x 21 = (3x20) + (3x1) *When you break apart the 21 into 20+1, it is easier to multiply mentally. 3x20 is 60; 3x1 is 3. 60 + 3 is 63 so 3 x 21 = 63 A third grade student might use the Distributive property this way: 7 x 5 = ? I know that 7 = 2 + 5 so that means that* *(2x5) + (5x5) = 7 x 5* *10 + 25 = 7 x 5* *35 = 7 x 5*
dividend	The number that is being divided up into equal groups. The number "in the house" or if written out in a number sentence, the first number in the equation.	

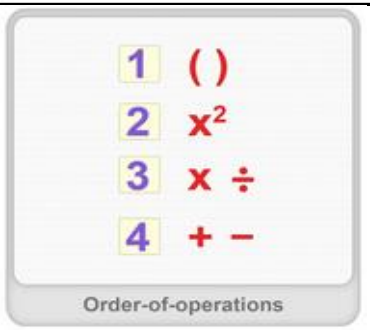
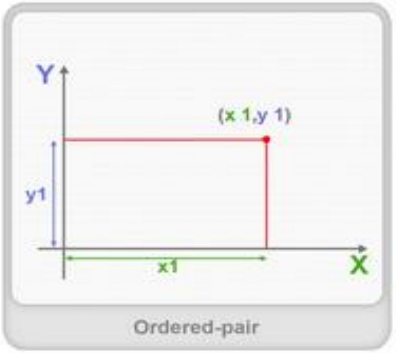
divisor	The number by which another quantity is to be divided. The number "outside the house or if written out in a number sentence, the second number in the equation.	Divident ÷ Divsor = Quotient *Also, see above illustration.*
edge	A line or border where two faces meet	
Elapsed time	The time that elapses while some event is occuring	
equation	A formula that is written where two quantites of the same value are separated by an equal sign	Ex. 1 3 + 3 = 6 Ex. 2 10 = 6 + 4 Ex. 3 14 x 2 = 28
equivalent fractions	Fractions whose numerator and denominator are in the same ratio respectively. All equivalent fractions can be reduced to the same simple fractionf	Ex. ½ is equivalent to 2/4, 3/6, 4/8, 5/10, 6/12, etc...

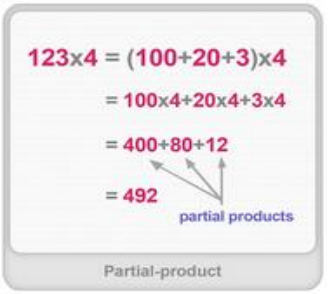
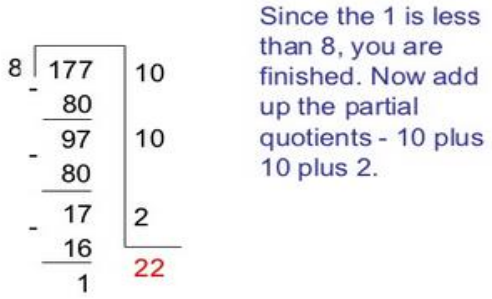
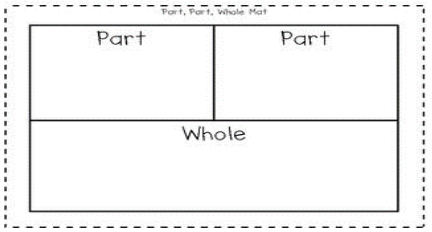
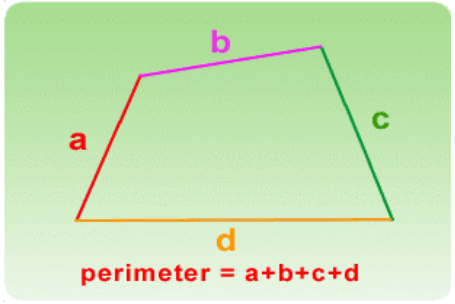
estimate	An approximate calculation	112 + 38 could be estimated to 110 + 40 = 150 or 100 + 40 depending on the situation and how precise you need your estimation.
evaluate	To determine or calculate the value of	A student could be asked to EVALUATE this expression: 256 x 24
even number	Any whole number having a 0, 2, 4, 6, or 8 in the ones place. Any multiple of 2 is an even number. When drawing a model of an even number, there will be none left over.	
expanded form	A spread out way of writing a number by showing the value of each individual digit.	
exponent	The exponent in a number tells how many times to multiply that number by itself.	Ex. $27 = 3 \times 3 \times 3 = 3^3$
expression	a mathematical phrase without an equal sign	Ex. 12 - 5

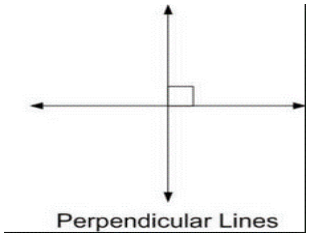
face	The flat surface on a 3-D object	
fact family	A group of numbers that are related to each other in that those numbers can be combined to create a number of equations. *Also known as related facts*	Example: 6 + 5 = 11 5 + 6 = 11 11 - 6 = 5 11 - 5 = 6
factors	A number that is multiplied with another number to get a product.	
flat **(Base Ten Blocks)**	The base ten block that is one flat square. It represents 100 units (ones). The example to the right shows 3 flats.	
hundredth	One part in a hundred equal parts	

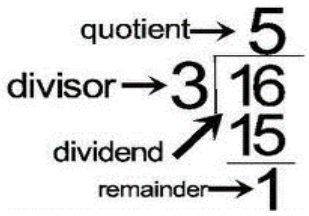
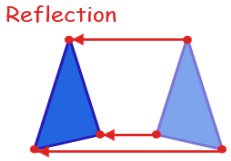
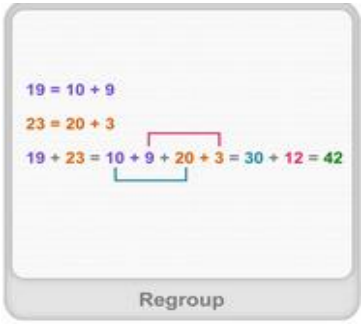
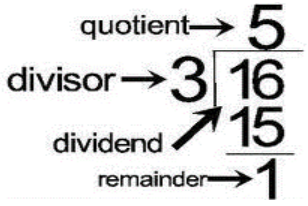
Identity Property	This property states that anytime you multiply a number by one, the product is always that number.	Ex. 256 x 1 = 256
improper fraction	A fraction in which the numerator is greater than the denominator	Ex. 5/4 (read as five fourths)
inequality	A relationship between two expressions that are not equal	Example: 4 x 2 < 3 x 3
interpret	Explain the meaning of	A student could be asked to INTERPRET the expression 46 - 19
inverse	The operation that reverses the effect of another operation	<table><tr><th>Operation</th><th>Inverse</th></tr><tr><td>Addition (+)</td><td>Subtraction (-)</td></tr><tr><td>Subtraction (-)</td><td>Addition (+)</td></tr><tr><td>Multiplication (*)</td><td>Division (÷)</td></tr><tr><td>Division (÷)</td><td>Multiplication (*)</td></tr></table>
label	The graphic to the right shows a label for the numbers represented in the division algorithm. Also, a word problem might require an answer that includes a visual and/or a sentence or words to describe the answer.	 
line	is straight, extends in both directions with no end	
Metric Measurement	The system of measurement in which the basic unit are the second, meter and the kilogram	<table><tr><th>Quantity</th><th>Base Unit</th><th>Symbol</th></tr><tr><td>Length</td><td>meter</td><td>m</td></tr><tr><td>Mass</td><td>kilogram</td><td>kg</td></tr><tr><td>Time</td><td>second</td><td>s</td></tr></table>

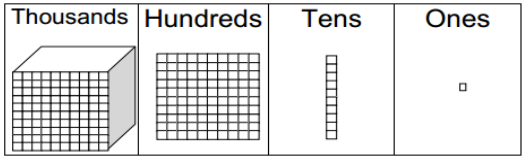
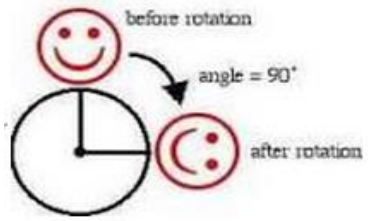
mixed number	a fration that includes a whole number and a fraction	Example: 2 ⅓ (read as 2 and one third)
model	a pictorial representation; draw a picture or show with manipulatives	
number line	a straight line in which each point represents a real number; has equal iterations	
number sentence	A group of numbers that include a mathematical operation (add, subtract, multiply or divide) and either an inequality or equal sign; also called an equation.	Examples: 3 + 7 = 10 4 + 8 > 2 - 1
numerator	The top number of a fraction	⅖ 2 is the numerator
obtuse angle	an angle that is greater than 90◦ but less then 180◦	

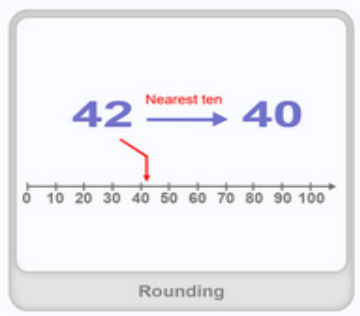
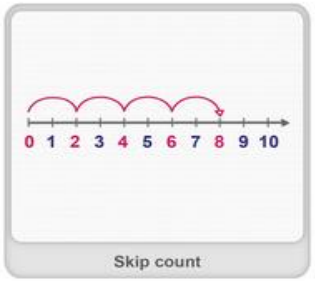
odd number	A number that is not divisible by two; when modeled in equal groups, there will be one left over.	
order of operations	The rules for which priority is given to operations in an expression. Parentheseis first; next evaluate exponents, if any; next do all multiplication and division, IN THE ORDER IT APPEARS IN THE EXPRESSION, finally perform all addition and subtraction, IN THE ORDER IT APPEARS IN THE EXPRESSION	
ordered pairs	A pair of numbers used to locate a point on a coordinate plane. The ordered pair is written in the form of (x, y) where x is the number located on the x axis (horizontal) and y is the number located on the y axis (vertical).	
parallel	A pair of lines that run side by side by will never touch.	

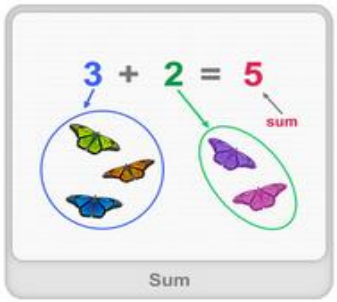
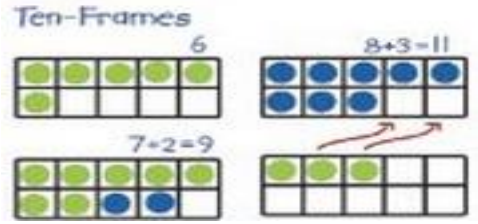
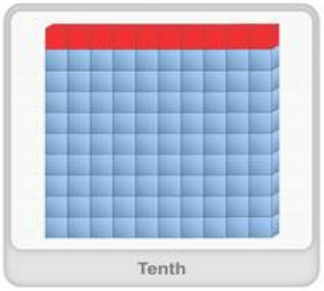
partial product	*Finding 'part' of the product at a time; Break apart the larger number and mutliply each part of it by the other factor; then add the partial products together.*	
partial quotient	*Similar to partial product, the student can make equal groups and take them away repetitively until there are no more groups to be made. Add up the number of groups along with the remainder. See illustration*	
part-part-whole chart	*a tool used in grades K - 2 to help students visualize how to decompose numbers. (ie. Break numbers apart in all possible combinations)*	
perimeter	*The distance around a 2 D plane figure or shape*	

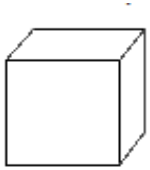
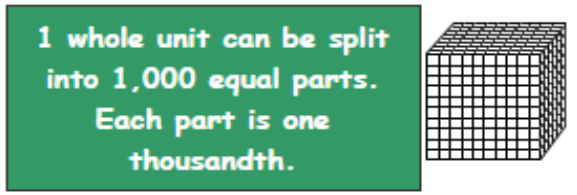
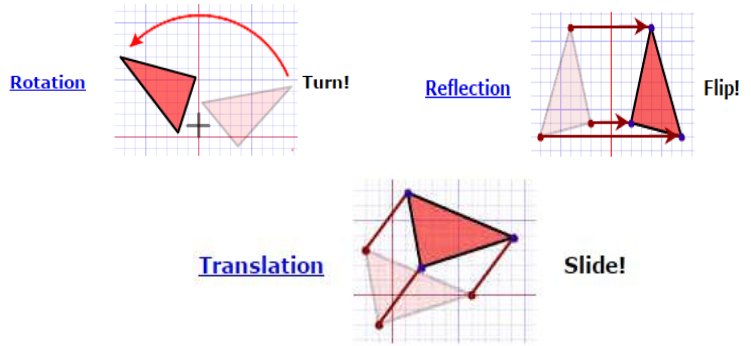
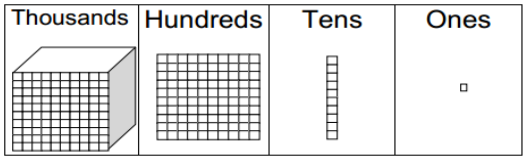
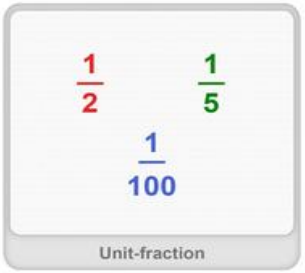
perpendicular	Lines that intersect at a right angle (90 ◦)	
place	Referring to the name of the place in which a digit is located. (ie. Hundreds place, tens place, ones place, etc.)	Which number is in the thousands place? 1**2**,345.678 The **2** is in the thousands place
place value	How much a digit is WORTH	What is the *value* of the 2 in 1<u>2</u>,345.678? The value of the 2 is 2,000 (two thousand)
plane shapes	A pictorial representation of a shape; a 2-D shape	
point	A point is an exact location. It has no shape; only a position. The illustration shows points A and B on a line.	
prime number	A number whose factors include only 1 and itself. See example.	3 = 1 x 3 5 = 1 x 5 7 = 1 x 7 11 = 1 x 11 13 = 1 x 13 17 = 1 x 17
product	The result of two factors being multipied together; the answer to a multiplication problem.	Example: 30 x 400 = 12,000

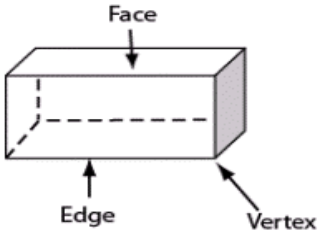
quotient	The result when you divide one number by another; the answer to a division problem	
ray	A line with a start point but not endpoint	
reciprocal	An expression that is so related to another that if you multiply them together, the product is one. A fraction that is flipped. See example.	Example: The reciprocal of ⅓ is 3/1
reflection	A flip over a line	
regrouping	The process used in addition and subtraction commonly known as "Carrying" and "Borrowing".	
remainder	A left over number when one number is divided by another	

repeated addition	Adding the same number over and over again. Leads to understanding of multiplication.	Example: 3 + 3 + 3 + 3 = 3 x 4 = 12
repeated subtraction	Repeatedly subtracting the same number from a group. Leads to the understanding of division.	Example: 24 - 8 - 8 - 8 = 0 Leads to the understanding that 24 ÷ 8 = 3 equal groups with no remainder.
right angle	An angle that measures exactly 90◦	
rod (base ten blocks)	The base ten block that is one rod. It represents one group of ten ones, or one ten. It takes 10 rods to make one flat (100). (See also Base Ten Block illustration)	
rotation	To turn a figure around a given point.	

round	Estimate.	
scaling	Act of measuring or arranging or adjusting according to a scale	A map is a scaled down version of the actual geographic landform.
simplify	To reduce a fraction to it's lowest terms by dividing the numerator and denominatory by their greatest common factor.	5 Factors are 1,5 10 Factors are 1,2,5,10 *The factor that the numerator (5) and the denominator (10) have in common that is the greatest is 5.* *5÷5= 1* 10÷5 = 2 Therefore; 5/10 is simplified to 1/2
skip counting	Counting by numbers other than one.	

standard form	a way of writing down very large or very small numbers easily.	The following numbers are in standard form. 16,000 100,001 1,225 0.000037
sum	The total amount after addition of numbers	
ten frame	a table used to represent a quantity of 10 or less. You can use two ten frames when working with numbers through 20. Most commonly used in grades K-1 to teach the concept of numbers; adding and subtracting	
tenth	one part in ten equal parts. The tenths place is the first place past the decimal	 In the number 12.345, the 3 is in the tenths place. In the picture to the left, *one tenth* of the flat is shaded red.

thousandth	one part in one thousand equal parts. The thousandths place is the third place past the decimal.	  In the number 12.345, the 5 is in the thousandths place. In the picture above, the block on the left is split into 1000 pieces on the right. Each tiny block is one thousandth of the original whole.
transformation	a general term to describe four specific ways to manipulate the shape of a point, line or shape. *Ex. Reflection, translation, and rotations are all transformations. Also known as flips, slides, and turns.*	
unit (base ten block)	The first position in a number, representing a single digit number. Also known as the ones place. The base ten block is a single cube. (See also Base Ten Block illustration)	
unit fraction	a fraction where the numerator is 1.	

variable	not consistent or unknown. In grades 4 and up, variables are usually denoted by using English alphabet letters. In lower grades, a shape is substituted for the alphabet letter. See example to the right.	$x + 2 = 5$; solve for x. $\square + 2 = 5$; fill in the box.
vertex	a corner of a figure. (Plural - Vertices; corners)	
word form	Writing the numerical number as you would say it in words.	*one hundred eighty-three thousand = 183,000*
Zero Property	The property in multiplication that states that any number multiplied by zero is 0.	Ex. 6 x 0 = 0 0 x 125 = 0

Information for this glossary was largely found on www.splashmath.com