Vocabulary Cards and Word Walls

Revised: June 29, 2011

Important Notes for Teachers:

- The vocabulary cards in this file match the Common Core, the math curriculum adopted by the Utah State Board of Education, August 2010.
- The cards are arranged alphabetically.
- Each card has three sections.
 - Section 1 is only the word. This is to be used as a visual aid in spelling and pronunciation. It is also used when students are writing their own "kid-friendly" definition and drawing their own graphic.
 - Section 2 has the word and a graphic. This graphic is available to be used as a model by the teacher.
 - Section 3 has the word, a graphic, and a definition. This is to be used for the Word Wall in the classroom. For more information on using a Word Wall for Daily Review – see "Vocabulary – Word Wall Ideas" on this website.
- These cards are designed to help all students with math content vocabulary, including ELL, Gifted and Talented, Special Education, and Regular Education students.

For possible additions or corrections to the vocabulary cards, please contact the Granite School District Math Department at 385-646-4239.

Bibliography of Definition Sources:

<u>Algebra to Go</u>, Great Source, 2000. ISBN 0-669-46151-8 <u>Math on Call</u>, Great Source, 2004. ISBN-13: 978-0-669-50819-2 <u>Math at Hand</u>, Great Source, 1999. ISBN 0-669-46922 <u>Math to Know</u>, Great Source, 2000. ISBN 0-669-47153-4 <u>Illustrated Dictionary of Math</u>, Usborne Publishing Ltd., 2003. ISBN 0-7945-0662-3 <u>Math Dictionary</u>, Eula Ewing Monroe, Boyds Mills Press, 2006. ISBN-13: 978-1-59078-413-6 <u>Student Reference Books</u>, Everyday Mathematics, 2007. Houghton-Mifflin eGlossary, http://www.eduplace.com Interactive Math Dictionary, http://www.amathsdictionaryforkids.com/

acute angle

acute angle







An angle with a measure less than 90°.

add

add



add



To combine, put together two or more quantities.

addend

addend



addend

5 + 3 + 2 = 10

Any number being added.

addends

additive comparison

additive comparison



How many more hearts than stars are there?

additive comparison



Problems that ask how much more (or less) one amount is than another.

How many more hearts than stars are there?

algorithm

algorithm

 $\begin{array}{r}
 24 \\
 \underline{x \ 3} \\
 12 \\
 \underline{60} \\
 72
\end{array}$

Multiply the ones 3 x 4 = 12 Multiply the tens 3 x 20 = 80

Add the partial products

algorithm

 $\begin{array}{r}
24 \\
\underline{x \ 3} \\
12 \\
\underline{60} \\
72
\end{array}$

Multiply the ones 3 x 4 = 12

Multiply the tens $3 \ge 20 = 60$

Add the partial products

A step-by-step method for computing.

angle



angle measure









The measure of the size of an angle. It tells how far one side is turned from the other side.

A one degree angle turns through 1/360 of a full circle.

arc



area

2 rows of 5 = 10 square units or 2 x 5 = 10 square units



area

2 rows of 5 = 10 square units

or 2 x 5 = 10 square units

The measure, in square units, of the inside of a plane figure.

area

area model



area model $\begin{array}{c} 20 + 8 \\ 9 \times 20 = 180 \\ 9 \times 8 = 72 \end{array}$

A model of multiplication that shows each place value product.

array









An arrangement of objects in equal rows.

Associative Property of Addition

Associative Property of Addition

(5+7) + 3 = 5 + (7+3)12 + 3 = 5 + 1015 = 15

Associative Property of Addition

(5+7) + 3 = 5 + (7+3)12 + 3 = 5 + 1015 = 15 Changing the grouping of three or more addends does not change the sum.

Associative Property of Multiplication

Associative Property of Multiplication

(5 x 7) x 3 = 5 x (7 x 3) 35 x 3 = 5 x 21105 = 105

Associative Property of Multiplication

(5 x 7) x 3 = 5 x (7 x 3) 35 x 3 = 5 x 21105 = 105 Changing the grouping of three or more factors does not change the product.

attribute



benchmark fractions

benchmark fractions

benchmark fractions

 $\frac{1}{4} \ \frac{1}{3} \ \frac{1}{2} \ \frac{2}{3} \ \frac{3}{4}$

Fractions that are commonly used for estimation.

capacity









Capacity refers to the amount of liquid a container can hold.

centimeter (cm)

centimeter





centimeter





A metric unit of length equal to 0.01 of a meter.

circle

circle



circle



A plane figure with all points the same distance from a fixed point called a center.

classify









To sort into categories or to arrange into groups by attributes.

common denominator

common denominator

12 is a common denominator for $\frac{2}{3}$ and $\frac{3}{4}$

common denominator

12 is a common denominator for $\frac{2}{3}$ and $\frac{3}{4}$

For two or more fractions, a common denominator is a common multiple of the denominators.

Commutative Property of Addition

Commutative Property of Addition



Commutative Property of Addition



Changing the order of the addends does not change the sum.

Commutative Property of Multiplication

Commutative Property of Multiplication



Commutative Property of Multiplication



Changing the order of the factors does not change the product.

compare



compare

4 is more than 3

To decide if one number is greater than, less than, or equal to.

comparison bars

comparison bars



comparison bars



Used to represent larger and smaller amounts in a comparison situation. Can be used to represent all four operations. Different lengths of bars are drawn to represent each number.

compose



compose



To put together components or basic elements.

composite number

composite number



composite number



2 x 3 = 6 6 is a composite number

A number greater than 0 that has more than two different factors.

congruent





congruent



Having exactly the same size and shape.

cup (c)









A customary unit of capacity. 1 cup = 8 fluid ounces.

customary system

customary system



customary system



A system of measurement used in the U.S. The system includes units for measuring length, capacity, and weight.

data





data



A collection of information gathered for a purpose.Data may be in the form of either words or numbers.

decimal

decimal

\$29.45 53.0 0.02

decimal

\$29.45 53.0 0.02

A number with one or more digits to the right of a decimal point.

decimal fraction

decimal fraction



 $0.38 = \frac{38}{100}$

decimal fraction



 $0.38 = \frac{38}{100}$

A fractional number with a denominator of 10 or a power of 10. Usually written with a decimal point.

decimal notation

decimal notation



decimal notation



A number containing a decimal point.

decimal point

decimal point

\$1.55 3.2 † † decimal point

decimal point \$1.55 3.2 † † decimal point

A dot (.) separating the whole number from the fraction in decimal notation.

decompose

decompose

Numbers can be 300 decomposed in a variety of ways, depending on 300 the situation.



decompose

Numbers can be decomposed in a variety of ways, depending on the situation.

300 20 20 2 ↓ 300 + 20 + 20 + 2

To separate into components or basic elements.
degree (angle measure)





degree (angle measure)



A unit for measuring angles. Based on dividing one complete circle into 360 equal parts.

denominator

denominator



denominator



- Parts in all
- Whole
- Set
- Total

The quantity below the line in a fraction. It tells how many equal parts are in the whole.

digit

01234 56789

digit

digit

01234 56789

Any of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9.

difference

difference

289 - 146 = 143difference

difference

289 - 146 = 143

The amount that remains after one quantity is subtracted from another.

Distributive Property

Distributive Property



Distributive Property



6 x 14 = 6 x (10 + 4) *Break up the 14 into 10 + 4

24 = 84

When one of the factors of a product is a sum, multiplying each addend before adding does not change the product.

divide

divide



 $15\div 3=5$

divide



To separate into equal groups and find the number in each group or the number of groups.

 $15\div 3=5$

dividend

dividend



dividend



A number that is divided by another number.

divisor





divisor



The number by which another number is divided.

endpoint





A point at either end of a line segment, or a point at one end of a ray.



These expressions balance the scale because they are equal.

equation

equation



sentence with an equals sign. The amount on one side of the equals sign has the same value as the amount on the other side.

A mathematical

equation



equivalent fractions

equivalent fractions



equivalent fractions



Fractions that have the same value.

estimate

estimate



How many jelly beans are in the jar?

estimate



To find a number close to an exact amount; an estimate tells *about* how much or *about* how many.

evaluate

42 - 13 = n

n = 29

evaluate

42 - 13 = n

To find the value of a mathematical expression.

evaluate

n = 29

expanded form

expanded form

263 = 200 + 60 + 3

expanded form

263 = 200 + 60 + 3

A way to write numbers that shows the place value of each digit.

expression

expression



expression n+4

A mathematical phrase without an equal sign.

fact family

fact family

Fact Family for 3, 5, 15 $3 \ge 5 = 15$ $15 \div 5 = 3$ $5 \ge 3 = 15$ $15 \div 3 = 5$

fact family

Fact Family for 3, 5, 15

$$3 \times 5 = 15$$
 $15 \div 5 = 3$
 $5 \times 3 = 15$ $15 \div 3 = 5$

A group of related facts that use the same numbers. Also called *related facts*.

factor





factor



The whole numbers that are multiplied to get a product.

factor pairs

factor pairs



The factor pairs for 6 are (2,3) and (1,6)

factor pairs



 $1 \ge 6 = 6 \qquad \text{is a set of } 1 \ge 6 = 6$

The factor pairs for 6 are (2,3) and (1,6)

A set of two whole numbers when multiplied, will result in a given product.

foot (ft)



12 inches = 1 foot

a = 1 5 3 + 2 2 2 3 + 2 2 3 10 11 15 inches

foot (ft)

12 inches = 1 foot

A customary unit of length. 1 foot = 12 inches.

formula

formula

To find the area of any rectangle, multiply its length by its width. This rule can be written as an equation,

 $A = l \ge w$

formula

To find the area of any rectangle, multiply its length by its width. This rule can be written as an equation,

 $A = l \mathbf{x} w$

A rule that is written as an equation.

fraction





Bar Diagram (thickened number line)

O





Regional/Array Model



fraction

Measurement Model



Bar Diagram (thickened number line)

Set Model Regional/Array Model



A way to describe a part of a whole or a part of a group by using equal parts.

function table

function table

Steamship		
Puff of Smoke input (p)	Total Blocks output (t)	
1	3	
2	4	
3	5	
Rule: t = p + 2		



Steamship		
Puff of Smoke input (p)	Total Blocks output (t)	
1	3	
2	4	
3	5	
Rule: t = p + 2		

A table that lists pairs of numbers that follow a rule.

gallon (gal)

gallon (gal)



gallon (gal)



A customary unit of capacity. 1 gallon = 4 quarts.

gram (g)

gram (g)

The mass of a paperclip is about 1 gram.



The mass of a paperclip is about 1 gram.

gram (g)



The standard unit of mass in the metric system. 1,000 grams = 1 kilogram

greater than



hour (hr)



hour (hr)



A unit of time. 1 hour = 60 minutes. 24 hours = 1 day.

hundredth

hundredth



hundredth



One of the equal parts when a whole is divided into 100 equal parts.

hundredths

hundredths



hundredths



In the decimal numeration system, hundredths is the name of the next place to the right of tenths.

Identity Property of Addition

Identity Property of Addition

8 + 0 = 8

Identity Property of Addition

8 + 0 = 8

If you add zero to a number, the sum is the same as that number.

Identity Property of Multiplication

Identity Property of Multiplication



Identity Property of Multiplication



1 group of 3 = 3 1 x 3 = 3 If you multiply a number by one, the product is the same as that number.

improper fraction

improper fraction

 $\frac{15}{6}$ $\frac{6}{3}$ $\frac{1}{3}$

improper fraction

<u>15</u> 6

<u>6</u> 3

<u>16</u> 5 A term for a fraction whose numerator is greater than or equal to its denominator.

inch (in)







A customary unit of length. 12 inches = 1 foot.

intersecting lines

intersecting lines



intersecting lines



Lines that cross at a point.

inverse operations

inverse operations

Multiplication and division are inverse operations.

inverse operations Multiplication and division are inverse operations.

Operations that undo each other.

kilogram (kg)

kilogram (kg)



Math book About 2 ½ pounds

kilogram (kg)



Math book

About 2¹/₂ pounds

A metric unit of mass equal to 1000 grams.
kilometer (km)

kilometer





A kilometer (km) is about the length of 4 city blocks.

kilometer





A kilometer (km) is about the length of 4 city blocks.

A metric unit of length equal to 1000 meters.

length









How long something is. The distance from one point to another. Length is measured in units such as inches, feet, centimeters, etc.

less than



less than



Less than is used to compare two numbers when the first number is smaller than the second number.

like denominators

like357denominators888

like denominators

Denominators in two or more fractions that are the same.

line









A set of connected points continuing without end in both directions.

line of symmetry

line of symmetry



line of symmetry



A line that divides a figure into two congruent halves that are mirror images of each other.

line plot



line plot



A diagram showing frequency of data on a number line.

line segment



segment

segment

A part of a line with two endpoints.

line symmetric figures

line symmetric figures



line symmetric figures



Figures that can be folded in half and its two parts match exactly.

liter (L)

large bottle of soda or bottle of water



1,000 mL = 1 L

large bottle of soda or bottle of water

liter (L)

liter (L)



The basic unit of capacity in the metric system. 1 liter = 1,000 milliliters.

1,000 mL = 1 L

lowest terms





lowest terms



$$\frac{4}{8}$$
 in lowest terms is $\frac{1}{2}$

When a fraction is expressed with the fewest possible pieces, it is in lowest terms. (Also called *simplest form*.)

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 (m)





A baseball bat is *about* 1 meter long.

A standard unit of length in the metric system.



meter (m)

A baseball bat is *about* 1 meter long.

metric system

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



Two times around the average roller coaster is *about* 1 mile.

mile





Two times around the average roller coaster is *about* 1 mile.

A customary unit of length. 1 mile = 5,280 feet

milliliter (mL)

This holds about 10 drops or 1 milliliter.

milliliter (mL)



This holds about 10 drops or 1 milliliter.





A metric unit of capacity. 1,000 milliliters = 1 liter.

millimeter (mm)

millimeter





The dot on a ladybug is *about* 1 millimeter wide.

millimeter





The dot on a ladybug is *about* 1 millimeter wide. A metric unit of length. 1,000 millimeters = 1 meter

minute (min)









One sixtieth of an hour or 60 seconds.

mixed number

mixed number



mixed number

1<u>5</u> 8

 $4\frac{3}{4}$

A number that has a whole number (not 0) and a fraction.

multiple

multiple

12 is a multiple of 3 (and of 4) because 3 x 4 = 12

multiple

12 is a multiple of 3 (and of 4) because 3 x 4 = 12 A product of a given whole number and any other whole number.

multiplicative comparison

multiplicative comparison



Amy has 5 baseball cards. Jeff has 3 times as many cards as Amy. How many baseball cards did they have altogether?

multiplicative comparison



Amy has 5 baseball cards. Jeff has 3 times as many cards as Amy. How many baseball cards did they have altogether? Compare by asking or telling how many times more one amount is as another. e.g. 4 times greater than.

multiply





multiply



The operation of repeated addition of the same number.

 $3 \ge 5 = 5 + 5 + 5$

number line







A diagram that represents numbers as points on a line.

numerator

numerator



- Parts shaded
- Parts we are using

numerator $\frac{1}{3}$



- Parts shaded
- Parts we are using

The number written above the line in a fraction. It tells how many equal parts are described in the fraction.

obtuse angle

obtuse angle



obtuse angle



An angle with a measure greater than 90° but less than 180°.

Order of Operations

Order of Operations

Order of Operations

- 1. Do operations in parentheses.
- 2. Multiply and divide in order from left to right.
- 3. Add and subtract in order from left to right.

Order of Operations

Order of Operations

- 1. Do operations in parentheses.
- 2. Multiply and divide in order from left to right.
- **3. Add and subtract in order** from left to right.

A set of rules that tells the order in which to compute.

ounce (oz)

ounce (oz)



A strawberry weighs about 1 ounce.

ounce (oz)



A customary unit of weight equal to one sixteenth of a pound. 16 ounces = 1 pound.

A strawberry weighs *about* 1 ounce.

parallel lines





parallel lines



Lines that are always the same distance apart. They do not intersect.

parentheses

parentheses ()

 $(2+3) \ge 4$ 5 \sc 4 20

parentheses

 $(2+3) \ge 4$ 5 \sc 4 20 Used in mathematics as grouping symbols for operations. When simplifying an expression, the operations within the parentheses are performed first.

pattern









A repeating or growing sequence or design. An ordered set of numbers or shapes arranged according to a rule.

perimeter

perimeter

perimeter



Perimeter = 4cm + 6cm + 4cm + 3cm = 17cm



The distance around the outside of a figure.

Perimeter = 4cm + 6cm + 4cm + 3cm = 17cm

period

period



period



In a large number, periods are groups of 3 digits separated by commas or by spaces.

perpendicular lines

perpendicular lines

perpendicular lines

Two intersecting lines that form right angles.

pint (pt)



pint (pt)



The orange juice carton holds 1 pint.

The orange juice carton holds 1 pint.

A customary unit of capacity. 1 pint = 2 cups

place value

place value

MILLIONS			THOUSANDS				ONES			
hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands		hundreds	tens	ones	
7	4	5	, 3	0	9	,	2	8	1	

place value

	MILLIONS		THOUSANDS				ONES			
hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands		hundreds	tens	ones	
7	4	5	, 3	0	9	,	2	8	1	

The value of the place of a digit in a number.

plane figure





A two-dimensional figure.
point





The exact location in space represented by a dot.

pound (lb)

pound (lb)



A loaf of bread weighs *about* 1 pound.

pound (lb)



A customary unit of weight. 1 pound = 16 ounces.

A loaf of bread weighs *about* 1 pound.

prime number





 $1 \times 5 = 5$

5 is a prime number





A whole number greater than 0 that has exactly two different factors, 1 and itself.

5 is a prime number

product





product



The answer to a multiplication problem.

protractor





protractor



A tool used to measure and draw angles.

quart (qt)



1 quart = 4 cups

quotient









The answer to a division problem.

range







The difference between the greatest number and the least number in a set of data.









A part of a line that has one endpoint and goes on forever in one direction.

reasonableness

reasonableness

 What is the product of 57 and 34?

 A. 1,938
 C. 5,738

 B. 3,208
 D. 8,698



Use estimation to eliminate unreasonable choices. 60 x 30 =1,800

B, C, and D are not close to 1,800. The answer is A.

reasonableness

 What is the product of 57 and 34?

 A. 1,938
 C. 5,738

 B. 3,208
 D. 8,698



Use estimation to eliminate unreasonable choices. 60 x 30 = 1,800 B, C, and D are not close to

1,800. The answer is A. An answer that is based on good number sense.

related facts

related facts

Related Facts for 3, 5, 8

$$3+5=8$$
 $8-5=3$
 $5+3=8$ $8-3=5$

related facts

Related Facts for 3, 5, 8

$$3+5=8$$
 $8-5=3$
 $5+3=8$ $8-3=5$

Related addition and subtraction facts or related multiplication and division facts. Also called *fact family*.

remainder

remainder

There are 22 students going on a field trip. There are 5 chaperones. How many students can be in a group?

 $22 \div 5 = 4 \text{ R}2$



4 or 5 students can be in a group.

There are 22 students going on a field trip. There are 5 chaperones. How many students can be in a group

 $22 \div 5 = 4 \mathbf{R2}$



4 or 5 students can be in a group.

The amount left over when one number is divided by another.

remainder

right angle

right angle



right angle



An angle that measures exactly 90°.

right triangle

right triangle



right triangle



A triangle that has one 90° angle.

round a whole number

round a whole number



round a whole number



To find the nearest ten, hundred, thousand, (and so on).

second (sec) (unit of time)

second (sec)

(unit of time)



60 seconds = 1 minute



(unit of time)



One sixtieth of a minute. There are 60 seconds in a minute.

60 seconds = 1 minute

sequence

sequence

2, 5, 8, 11, 14, 17...

sequence

2, 5, 8, 11, 14, 17...

A set of numbers arranged in a special order or pattern.

simplest form

simplest form







When a fraction is expressed with the fewest possible pieces, it is in simplest form. (Also called *lowest terms.*)

simplify









To express a fraction in simplest form.

square unit

square unit





A unit, such as square centimeter or square inch, used to measure area.

square unit



standard form

standard form

12,345

standard form



A common or usual way of writing a number using digits.

subtract

subtract





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.

tenth





tenth

_	 	 	 	 	

One of the equal parts when a whole is divided into 10 equal parts.

time interval





time interval



A duration of a segment of time.

two-dimensional

two-dimensional



two-dimensional



Having length and width. Having area, but not volume. Also called a plane figure.

unit fraction

unit fraction

unit

fraction

1 2

A fraction that has 1 as its numerator.

unlike denominators

unlike denominators

 $\frac{1}{3}
 \frac{1}{4}
 \frac{1}{5}$

unlike denominators

 $\frac{1}{3} \quad \frac{1}{4} \quad \frac{1}{5}$

Denominators that are not equal.

variable

variable

$5 \times b = 10$ b is a variable worth 2

variable



b is a variable worth 2

A letter or symbol that represents a number.

vertex



vertex



The point at which two line segments, lines, or rays meet to form an angle.

volume





liquid volume

volume



The number of cubic units it takes to fill a figure.

liquid volume

weight









The measure of how heavy something is.

whole numbers

whole numbers



whole numbers



Whole numbers are zero and the counting numbers 1, 2, 3, 4, 5, 6, and so on. If a number has a negative sign, a decimal point, or a part that's a fraction, it is not a whole number.

word form

word form

The word form of 12,345 is twelve thousand three hundred forty-five

word form The word form of 12,345 is twelve thousand three hundred forty-five

A way of using words to write a number.

yard (yd)

yard (yd)



A door is *about* 1 yard wide.

yard (yd)



A door is about 1 yard wide.

A customary unit of length. 1 yard = 3 feet or 36 inches.

Zero Property of Multiplication

Zero Property of Multiplication

 $\mathbf{8} \ge \mathbf{0} = \mathbf{0}$

Zero Property of Multiplication

 $\mathbf{8} \ge \mathbf{0} = \mathbf{0}$

The product of any number and zero is zero.