

# Math Matters

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## What's That Word?

A flat, 2-dimensional shape is called a **PLANE SHAPE**.

A clock or watch is called **ANALOG** when it has moving hands and hours marked from 1 to 12 to show you the time.

A number greater than 1 written as a whole number and a fraction whose value is less than 1 is called a **MIXED NUMBER**.  
(2 3/4)

The **VOLUME** of a three-dimensional space is the measurement of the total number of cubic units needed to fill space.

### Click It!

#### Check out these websites:

- ◆ [PBSKidslab.org](http://PBSKidslab.org)  
Explore games for math and more! Games are for ages 3-5 or 6-8.
- ◆ [Fog Stone Isle by Cignition](http://Fog Stone Isle by Cignition)  
Click the Free Access button to sign up and your child can play this highly engaging game designed to help students understand

## How Does Math Grow With Your Child?

### The Progression of a Mathematical Idea as it builds from Kindergarten to 5th Grade

Have you ever looked at your child's math work and thought, "Why are they doing that?" The reason is most likely that what they are doing helps them to develop a mathematical idea that can be applied in increasingly advanced ways each year. For example, let's examine the idea of decomposing.

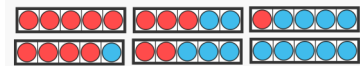
A number bond or a part-whole chart is a way to represent the mathematical idea that a number can be broken into parts and still have the same value. This is also called decomposing a number. Let's look at the impact of this one idea throughout elementary mathematics.

In Kindergarten students learn that numbers can be broken apart in many ways. 1st grade students use this idea to make adding easier, by breaking apart one addend. They extend this in 2nd grade as they decompose and re-compose to add 2-and 3-digit numbers based on place value. By 3rd grade they apply the concept to multiplication and break apart one factor when finding a product. In 4th grade, they learn that since fractions are numbers they can also be decomposed and apply the concept to adding unit fractions. Finally, in 5th grade they extend this same understanding to adding fractions with unlike denominators. It may seem unfamiliar, but it will take their learning to new heights!

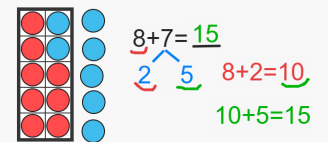
## Decomposing Numbers in Grades K-5

Check out these examples of decomposing to see how it grows!

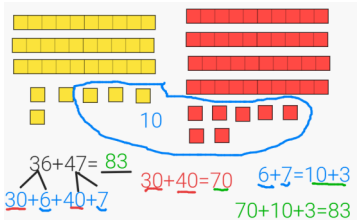
Kindergarten:



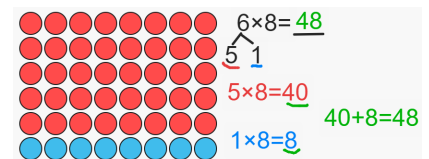
1st:



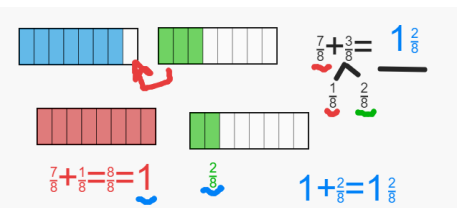
2nd:



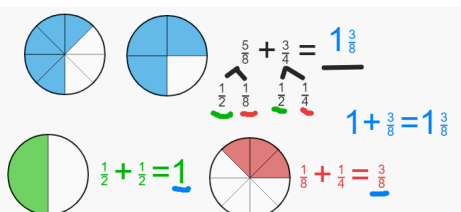
3rd:



4th:



5th:





## Recommended Reading

Numbers, Addition, and Subtraction (grades K-3):

### Centipede's 100 Shoes

by Tony Ross

Money (grades 2-4):

### Follow the Money!

by Loreen Leedy

Fractions (grades 3-4):

### The Wishing Club

by Donna Jo Napoli

Mathematics (grades 2-6):

### Math Curse

by Jon Scieszka

## Math Jokes, Riddles and Facts!

What are two whole positive numbers that have a one-digit answer when multiplied and a two-digit answer when added?

Answer: One and Nine!

Parallel lines have so much in common...It's a shame they'll never meet!

Why do teenagers travel in groups of 3 or 5?

Answer: Because they just can't even!



## Figure It Out Together!

### Solve It:

Try these Challenges from [Openmiddle.com](http://Openmiddle.com)

#### (K) Adding One-Digit Numbers

Directions: Use the digits 1 to 5, at most one time each, to fill in the boxes to create two true number sentences.

$$\square + \square = \square$$

#### (1-2) Equivalent Statements

Directions: Place numbers 1 through 9 in the boxes to create a true statement. Each number can only be used once.

$$\square = \square + \square = \square + \square + \square$$

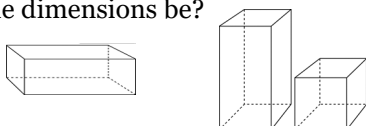
#### (3-4) Placing Fractions on A Number Line

Directions: Create 5 fractions using the whole numbers 0 through 9, exactly one time each as numerators and denominators, and place them all on a number line.



#### (5-6) Volume

Directions: A rectangular prism has a volume of 144 cubic units and a base of 48 square units. What could the possible dimensions be?



### Try These Apps for Math on the Go!

- Math Tappers, Find Sums (free)
- Dragon Shapes, Lumio Geometry (\$2.99)
- Math Evolve: A Fun Math Game (\$1.99)
- Addidoku, by Tinybird (free)
- Coin Crash, by Ben Morrison (free)

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Have a great math riddle, tip, trick, website or book to share? Have questions, comments, or concerns? Contact us by email at:



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