

# Modeling with Mathematics

How can I help bridge what my child is  
learning in the upper elementary  
classroom to real world situations?

Parent University 2015



## Useful Resources

It is extremely important that your child has mastered their math facts  $+$ ,  $-$ ,  $\times$ ,  $\div$ . It should take your child less than 3 seconds to recall a fact for it to be considered "mastered."

Websites	Apps
<a href="http://www.multiplication.com">www.multiplication.com</a>	Operation Math
<a href="http://www.reflexmath.com">www.reflexmath.com</a> Paid, Resource	Sushi Monster
<a href="http://www.coolmath.com">www.coolmath.com</a>	Quick Math
<a href="http://www.ixl.com">www.ixl.com</a>	Math Flash Cards
<a href="http://www.math.com">www.math.com</a>	Math Vs. Zombies

# Math Fact Fluency

## Critical Thinking "Solve the Problem"

Math depends on a child's ability to understand a problem and take appropriate steps to solve it, specifically multiple step problems. They need practice in problem solving. Children should be asked to find solutions to even the most basic household problems. Some examples include:

- I don't have an ingredient I need for a recipe.
- There aren't enough plates on the table.
- We have lost the pieces for our board game.
- We can't afford to go do \_\_\_\_\_, can you research an alternative?
- Problem Based Learning
  - How big is infinity?
  - [www.estimated180.com](http://www.estimated180.com)

# Problem Solving

## Manipulatives

In the past, students have received little assistance with visualizing math. New curriculum asks students to be able to model math and illustrate it. Resources include:

- Base Ten Blocks
  - All Numbers in Base Ten Concepts
- Hundreds Charts
- Fraction Circles/Bars
- Number Lines

I don't know how to use these resources!  
Help!

- [www.nvln.usu.edu](http://www.nvln.usu.edu) - Digital Manipulatives
- [www.youtube.com](http://www.youtube.com) - learn how to solve the problems
- [www.khanacademy.org](http://www.khanacademy.org) - Problem solving procedures
- [www.learnzillion.com](http://www.learnzillion.com) - Problem solving procedures
- <https://student.frontrowed.com> - Teacher must log them on

# Hands on Learning

## Real World Connections

The most validating thing we can do for our children is to show them how math is used in the world around us. This involves taking learning beyond their homework.

### Situations to use:

- Shopping - Comparing Costs, Unit Rates when purchasing groceries (think cereal), estimating discounts, weighing produce, etc.
- Dining Out - Calculating tips, budgeting, using coupons
- Create a log system like a balance sheet to record money earned and money spent.
- Measuring - Have students estimate how much paper will be needed to wrap gifts, measure objects, find the area of their bedrooms, etc.
- Fractions - Dividing family meals into equal servings, calculating recipes, measuring with measuring cups, etc.
- Computer Programming - Multiple Apps to use, some are free!
  - <https://scratch.mit.edu>
  - Move the Turtle (APP)
  - [www.alice.org](http://www.alice.org)
  - [www.codecademy.com](http://www.codecademy.com)
  - MIT App Inventor (APP)

# Exposure