



**MATH TIPS FOR
PARENTS**

**WEBSITES FOR
PARENTS**

**PROBLEM
SOLVING
RESOURCES**

PARENT RESOURCES

**COUGARS
DOING
WHATEVER IT TAKE**

MATH TIPS

MAKING HOME AND MATH CONNECT

- Explore math in everyday life — counting out forks to set the table, pouring from a gallon of milk, telling the time when his favorite TV program begins. When kids realize that math is all around them, they begin to relax and see its meaning in their lives.
- Show how math is more than learning addition, subtraction, multiplication, and division. Math also teaches us to analyze, reason, and plan. These are useful skills that transfer over to reading and writing as well.
- Model analytical and mathematical thinking. Be a problem solver, pose questions, and find solutions. Talk about likenesses and differences, and explain your reasoning.
- Encourage your child to explain his problem-solving process so you can understand his reasoning.
- When driving to school or the store, talk about how numbers help us determine how fast we drive, the distance traveled, the mileage the car gets per gallon of gas, and how long it will take to get home.
- Expose your child to money in her early school years. Have her collect coins in a piggy bank and count them out regularly. If she receives an allowance, have her keep track of the amount or start a bank account.
- Have your child use an analog and a digital watch to learn both methods of telling time.
- Incorporate games involving numbers and math into playtime — from flash cards for learning basic math facts to board games involving money, time, and logic.
- When helping your child, ask questions to guide him through the process, such as "Where do you begin?" "What do you need to find out?" "Can you show me in a drawing how you got the answer?"
- It's OK to say that you don't understand a problem. It gives you an opportunity to review the lesson together to see if you've missed an important piece of information.

EUREKA MATH TIPS FOR PARENTS

Do you know how to make a number bond or use a rekenrek? Need a refresher on how to use a number line? Don't worry – Eureka Math has it covered and much more.

<http://commoncore.org/parents>

KHAN ACADEMY

Khan Academy is a non-profit educational organization created in 2006 by educator Salman Khan to provide "free, world-class education for anyone, anywhere." Khan Academy's extensive video library covers a multitude of subjects such as elementary school math through Differential Calculus. Students can make use of the extensive library of content, including interactive challenges, assessments, and videos from any computer with access to the web.

[HTTPS://WWW.KHANACADEMY.ORG/](https://www.khanacademy.org/)

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MATH DEMYSTIFIED

Check out this awesome link that tackles a variety of math topics.

<http://www.silverwoodschool.org/programs/singapore.2010.pdf>

Web Sites

Virtual Base Ten Blocks

http://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/gr3-5/itools_intermediate_9780547274058_/basetenblocks.html

Division

<http://www.mathworksheets4kids.com/division.html>
<http://www.superteacherworksheets.com/generator-basic-division.html>

Practice Mixed Operations

<http://www.math-drills.com/multiop.shtml>
http://www.worksheetworks.com/pdf/ea8/137d5f872677/WorksheetWorks_Multiplication_Division_2.pdf

Geometry

http://teams.lacoe.edu/documentation/classrooms/amy/geometry/6-8/activities/quad_quest/quad_quest.html

<http://illuminations.nctm.org/Activity.aspx?id=3581>

Sheppard Software

<http://www.sheppardsoftware.com/math.htm>

3RD MATH

[Multi-Operational Two Step Word Problems – Grade 3 Common Core Standards «](#)

<http://www.swisd.net/hip/3rdgrademath>

4th grade Math

<http://www.swisd.net/hip/4thgrademath>

5th grade Math

<http://www.swisd.net/hip/5thgrademath>

I love these web sites as they are kid friendly for Math Vocabulary

<http://www.amathsdictionaryforkids.com/>

http://www.icoachmath.com/math_dictionary/mathdictionarymain.html

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ELAPSED TIME

[E-Lab, Elapsed Time Minutes and Hours](#)

Elapsed Time

http://www.harcourtschool.com/activity/elab2002/grade_4/015.html

http://www.haelmedia.com/html/mc_m4_002.html

<http://www.quia.com/mc/66516.html>

Patterning

The game below goes beyond recognizing a pattern and asks kids to identify the “rule or the relationship” that exists between the input and the output. Children must recognize the pattern as well as be able to describe the relationship that exists between the input and output

example

input	5	6	7	8	9	10	11
output	15	18	21	24	27	30	33

http://www.internet4classrooms.com/skill_builders/patterns_functions_math_fifth_5th_grade.htm

<http://www.mathplayground.com/functionmachine.html>

Improper and mixed fractions

http://www.aasd.k12.wi.us/staff/boldtkatherine/MathResources3-6/Math_Fractions.htm

<http://mrnussbaum.com/clarafraction/>

Simplify Fractions

<http://www.math-play.com/simplifying-fractions-game/simplifying-fractions-game.html>

<http://www.math-play.com/baseball-math-simplifying-fractions/simplifying-fractions-game.html>

Equivalent fractions.

<http://pbskids.org/cyberchase/games/fractions/index.html>

http://www.learningmedia.co.nz/staticactivities/online_activities/flitting_with_fractions/

<http://www.iknowthat.com/com/L3?Area=FractionGame/>

(<http://www.gamequarium.org/dir/Gamequarium/Math/Fractions/Comparing/>)

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<http://alexandria->

[es10.lausd.k12.ca.us/Staff_Pages/Henry_Anker/Mr_Anker_Tests_New/Math/Fractions/Equivalent_Fractions_Set_01.swf](http://alexandria-es10.lausd.k12.ca.us/Staff_Pages/Henry_Anker/Mr_Anker_Tests_New/Math/Fractions/Equivalent_Fractions_Set_01.swf)

Use these web sites once you have a really solid understanding about the concept of equivalent fractions

<http://pbskids.org/cyberchase/games/equivalentfractions/index.html>

<http://pbskids.org/cyberchase/games/percent/index.html>

<http://www.mrnussbaum.com/fractions.htm#games>

<http://www.arcademicskillbuilders.com/games/dirt-bike-comparing-fractions/dirt-bike-comparing-fractions.html>

http://www.hbschool.com/activity/mmath/mmath_frac.html

Games Various Math Topics

<http://www.harcourtschool.com/menus/auto/13/4.html>

<http://www.fleetkids.com/>

This is a MEGA site for various games

<http://www.kiddonet.com/>

Order of Operations

<http://mrnussbaum.com/orderops/>

Love this interactive e-lab site

<http://www.harcourtschool.com/elab/index.html>

http://www.funbrain.com/cgi-bin/getskill_s.cgi?A1=selects&A2=math&A4=4&A7=4

<http://www.counton.org/>

<http://www.learner.org/exhibits/dailymath/>

Loads of games, neat student created games

<http://www.gamequarium.com/index2.htm>

Various Math Resources

<http://harcourtschool.com/menus/auto/13/3.html#1>

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<http://www.gamequarium.com/>

http://www.youtube.com/user/mathantics/videos?shelf_id=0&sort=dd&view=0

Geometry

http://www.aasd.k12.wi.us/staff/boldtkatherine/MathResources3-6/Math_Geometry.htm

<http://www.psd1.org/Page/3405>

this has loads of links to other sites

<http://www.homeschoolmath.net/online/geometry.php>

Measurement

http://www.aasd.k12.wi.us/staff/boldtkatherine/MathResources3-6/Math_Measurement.htm

This is a real challenge but fun

<http://mrnussbaum.com/soda/>

<http://mrnussbaum.com/soup/>

fractions

[Baseball Math - Simplifying Fractions Game](#)

[Equal Fractions Monkeys.NumeracyApps.co.uk](http://EqualFractionsMonkeys.NumeracyApps.co.uk)

[Fractions Menu - Math Games](#)

[iPad App available - see www.NumeracyApps.co.uk](#)

[Matching Equivalent Fraction](#)

[Math Games for Kids . Cyberchase PBS KIDS](#)

[Mathman - Identify Fractions On A Number Line](#)

[Simplifying Fractions Game](#)

[Triplets - Equivalent Fractions](#)

FRACTIONS

[Fun Kids Online Math Games](#)

<http://www.isd2184.net/~g.hansen-home-Book%20pages-Bits%20&%20Pieces%2011-6BPSEIN1.pdf>

[Math Games Fruit Shoot Fractions Addition](#)

[Mixed Fraction Word Problems Worksheet](#)

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[3-5 Math Resources - Curriculum](#)

Elementary Math

[Math Games for Kids . Cyberchase PBS KIDS](#)

[Math Snacks - Pearl Diver](#)

[Math Vocab](#)

[Mathematics K-5 \(2\)](#)

[Mathematics K-5 \(3\)](#)

[Mathematics K-5 \(4\)](#)

[Mathematics K-5](#)

[Mathino Dr Mike's Math Games for Kids \(2\)](#)

[Mathino Dr Mike's Math Games for Kids](#)

[Mathopolis Question Database \(2\)](#)

[Mathopolis Question Database](#)

[Maths Games to play](#)

SUMMER FUN

[CPSD Math Department - Summer Math Activities](#)

http--www.elcosd.org-student_services-Forms-mathchat_summer_printable.pdf

http--www.nctm.org-uploadedFiles-Lessons_and_Resources-Teaching_Tips-Contig%281%29.pdfn=6383

[Mathalicious](#)

[NCTM 1 Make Math Fun under the Sun](#)

[NCTM Keepin' up on Math Skills over Break](#)

[Play from Birth to Twelve and Beyond Contexts, Perspectives, and Meanings - Doris Pronin Fromberg, Doris Bergen - Google Books](#)

[Summer Family Learning in Math and Science](#)

[Summer Math - TeacherVision.com](#)

[Summer Math Ideas](#)

General

<http://blog.reallygoodstuff.com/11-free-math-sites-for-kids/>

PROBLEM SOLVING RESOURCES

Word Problem: 6-Step Framework

1. Read the **entire** problem
2. Rewrite the question as a statement
3. Identify who or what the problem is about
4. Draw a model
5. Solve the equation
6. Check your answer for reasonableness

Implementing the 6-Step Framework listed above

There were 5 baboons in a troop. 8 more baboons joined them. How many baboons are now in the troop?

Step 1. Read

Step 2. There are ___ baboons in the troop.

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Step 3. The problem is about baboons in a troop.

Step 4. Model



Step 5. Solve the equation

$$5 + 8 = ?$$

$$5 + 8 = 13$$

Step 6. It is reasonable that there are 13 baboons in the troop as 13 is the sum of 5 and 8.

USING BAR MODELS TO SOLVE MATH WORD PROBLEMS

Word Problem fall into several categories. Below is a table from the [Problem Solving Structures](#) matrix. **Credit to John SanGiovanni Howard County Schools, Howard County Maryland** for outlining the most common type of + and – word problems as well as X and ÷ word problems.

	Result Unknown	Change Unknown	Start Unknown
Add to	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? $2 + 3 = ?$	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? $2 + ? = 5$	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? $? + 3 = 5$
Take from	Five apples were on the table. I ate two apples. How many apples are on the table now? $5 - 2 = ?$	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? $5 - ? = 3$	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $? - 2 = 3$
Put Together/ Take Apart ²	Total Unknown	Addend Unknown	Both Addends Unknown ¹
	Three red apples and two green apples are on the table. How many apples are on the table? $3 + 2 = ?$	Five apples are on the table. Three are red and the rest are green. How many apples are green? $3 + ? = 5, 5 - 3 = ?$	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? $5 = 0 + 5, 5 = 5 + 0$ $5 = 1 + 4, 5 = 4 + 1$ $5 = 2 + 3, 5 = 3 + 2$
Compare ³	Difference Unknown	Bigger Unknown	Smaller Unknown
	(“How many more?” version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? (“How many fewer?” version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? $2 + ? = 5, 5 - 2 = ?$	(Version with “more”): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with “fewer”): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? $2 + 3 = ?, 3 + 2 = ?$	(Version with “more”): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (Version with “fewer”): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? $5 - 3 = ?, ? + 3 = 5$

	Unknown Product	Group Size Unknown (“How many in each group?” Division)	Number of Groups Unknown (“How many groups?” Division)
	$3 \times 6 = ?$	$3 \times ? = 18, \text{ and } 18 \div 3 = ?$	$? \times 6 = 18, \text{ and } 18 \div 6 = ?$
Equal Groups	There are 3 bags with 6 plums in each bag. How many plums are there in all? <i>Measurement example.</i> You need 3 lengths of string, each 6 inches long. How much string will you need altogether?	If 18 plums are shared equally into 3 bags, then how many plums will be in each bag? <i>Measurement example.</i> You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be?	If 18 plums are to be packed 6 to a bag, then how many bags are needed? <i>Measurement example.</i> You have 18 inches of string, which you will cut into pieces that are 6 inches long. How many pieces of string will you have?
Arrays, ⁴ Area ⁵	There are 3 rows of apples with 6 apples in each row. How many apples are there? <i>Area example.</i> What is the area of a 3 cm by 6 cm rectangle?	If 18 apples are arranged into 3 equal rows, how many apples will be in each row? <i>Area example.</i> A rectangle has area 18 square centimeters. If one side is 3 cm long, how long is a side next to it?	If 18 apples are arranged into equal rows of 6 apples, how many rows will there be? <i>Area example.</i> A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is a side next to it?
Compare	A blue hat costs \$6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost? <i>Measurement example.</i> A rubber band is 6 cm long. How long will the rubber band be when it is stretched to be 3 times as long?	A red hat costs \$18 and that is 3 times as much as a blue hat costs. How much does a blue hat cost? <i>Measurement example.</i> A rubber band is stretched to be 18 cm long and that is 3 times as long as it was at first. How long was the rubber band at first?	A red hat costs \$18 and a blue hat costs \$6. How many times as much does the red hat cost as the blue hat? <i>Measurement example.</i> A rubber band was 6 cm long at first. Now it is stretched to be 18 cm long. How many times as long is the rubber band now as it was at first?
General	$a \times b = ?$	$a \times ? = p, \text{ and } p \div a = ?$	$? \times b = p, \text{ and } p \div b = ?$

Check out the diagrams on the Singapore Math web site to view applications of using the bar models/Thinking Blocks/ Singapore Math Model to solve story problems.

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<http://www.thesingaporemaths.com/>

<http://www.thinkingblocks.com/index.html>