



## Helping Your Mathematician!

Below are some activities and strategies designed to give your child an opportunity to explore the many ways mathematicians solve problems. Summer is a time experience the ways math takes place in the world around us. While it can be tempting to teach your child a favorite or quick way to solve a math problem, research has shown that if children memorize a way of solving a problem before they develop an understanding of the concepts in that method, it actually makes learning the ideas more difficult. Remember, we all learn much more by figuring it out for ourselves! You can always say, "Show me how you figured that out." Then wait, listen, and say, "Oh, that's great. Here's how I figured it out."

### Entering Grade 1

- Play games and talk about math in the real world.
- Ask "How did you get that?" "Can you show me another way to do that?" "Remember how you did \_\_\_\_\_, see if you can use that same strategy." It is great practice to have kids verbalize strategies that they used to figure out an addition or subtraction problem.
- Count with your child whenever possible. Practice counting up and practice counting down. Count small groups of items and play games that reinforce counting, which includes everything from Chutes & Ladders and dominoes to Parcheesi.
- Practice estimating. Show your child small groups of items and ask them to estimate how many are in the group. Then count and check your estimates.

### Entering Grade 2

- Play games and talk about math in the real world.
- Ask "How did you get that?" "Can you show me another way to do that?" "Remember how you did \_\_\_\_\_, see if you can use that same strategy." It is great practice to have kids verbalize strategies that they used to figure out an addition or subtraction problem.
- Reinforce addition and subtraction facts for the numbers 1 through 10 through games. Games work best when kids and grown-ups play together. And don't try to lose: your child will beat you soon enough!
- Practice estimating and measuring: How many cards are in a parking lot? Do you have personal benchmarks to help you decide when something is about an inch or a foot long? How many pounds is that watermelon? How heavy is your neighbor's dog?

### Entering Grade 3

- Play games and talk about math in the real world.
- Ask "How did you get that?" "Can you show me another way to do that?" "Remember how you did \_\_\_\_\_, see if you can use that same strategy." It is great practice to have kids verbalize strategies that they used to figure out an addition or subtraction problem.
- Reinforce addition and subtraction facts for the numbers 1 through 20, through games. Games work best when kids and grown-ups play together. And don't try to lose: your child will beat you soon enough!
- Reinforce the addition and subtraction strategies they learned in second grade in the context of story problems you can have fun making up together.
- Ask your child to model what is happening in a problem. Use rocks, pennies, or blocks to show what is actually going on when numbers are combined and separated.
- Practice estimating and measuring: Try estimating the size of the crowd if you go to a concert or stadium together. Do you know how scientists estimate the numbers of migrating animals from airplanes? Do you have personal benchmarks to help you decide when something is about an inch or a foot long? How many pounds is that watermelon? How many cups in a gallon of lemonade?



## Entering Grade 4

- Play games and talk about math in the real world.
- Ask “How did you get that?” “Can you show me another way to do that?” “Remember how you did \_\_\_\_\_, see if you can use that same strategy.” It is great practice to have kids verbalize strategies that they used to figure out an addition or subtraction problem.
- If necessary, reinforce basic addition and subtraction facts through games. Games work best when kids and grown-ups play together. And don’t try to lose: your child will beat you soon enough!
- Reinforce the addition and subtraction strategies they learned in third grade in the context of story problems you can have fun making up.
- Ask your child to explain how they came up with their answers. It is great practice to have them verbalize strategies that they used to figure out an addition or subtraction problem.
- Reinforce the basic multiplication facts. Some children find practicing their facts with music helpful ( The City Creek Press CD “Times Tables the Fun Way” is a good resource).
- Practice estimating to develop measurement sense: Try estimating the size of the crowd if you go to a concert or stadium together. Do you know how scientists estimate the numbers of migrating animals from airplanes? Do you have personal benchmarks to help you decide when something is about an inch or a foot long? How many pounds is that watermelon? How many cups in a gallon of lemonade? Compare metric and standard units. How much would you weigh on the moon?

## Entering Grade 5

- Play games and talk about math in the real world. Go grocery shopping and compare prices per pound, count change, bake and cook, measure and sew, calculate miles per gallon when you buy gasoline, determine batting averages, compare winning Olympic medal times, or do any of the daily activities we all do that involve mathematical reasoning and reinforce number sense.
- Ask “How did you get that?” “Can you show me another way to do that?” “Remember how you did \_\_\_\_\_, see if you can use that same strategy.” It is great practice to have kids verbalize strategies that they used to figure out an addition or subtraction problem.
- Reinforce basic multiplication facts, through games or grids. Games work best when kids and grown-ups play together. And don’t try to lose: your child will beat you soon enough!
- Help your child integrate math and language by discussing math! Have fun making up word problems for your child to problem solve.
- Help your child understand all the ways economists, businessmen, physicians, and scientists and many other professionals depend on their math expertise everyday and why math is important for developing their thinking skills.