

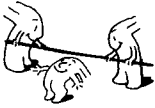
# Math+Science Connection

Intermediate Edition

Building Understanding and Excitement for Children

May 2013

Holy Name School  
Dr. Patricia Wardell, Principal



## INFO BITS

### Math tutor

Having trouble keeping up with your child's math? "Hire" her as your math tutor over the summer. You might schedule weekly sessions on topics like fractions and decimals. She'll work on her skills as she teaches you what she has learned in math this year. And she'll gain confidence by teaching her parent something!

### Animal behavior

Consider letting your youngster learn about animal behavior in a hands-on way—by having his own pet. Perhaps a dog, cat, guinea pig, bearded dragon, or fish would be a good match for your family. Then, encourage your child to notice how the pet responds to his voice, shows she's hungry, plays with toys, or cleans herself.

### Book picks

▣ Twin brothers get the same allowance from Grandpa, but they spend and save in very different ways. Your youngster will get a lesson in math and financial literacy in *Rock, Brock, and the Savings Shock* (Sheila Bair).

▣ *Crazy Concoctions: A Mad Scientist's Guide to Messy Mixtures* (Jordan D. Brown) contains a summer's worth of science fun. Includes instructions for making fake blood, slime, and more.

### Worth quoting

"In all things of nature there is something of the marvelous." Aristotle

## Just for fun

**Q:** What did the caterpillar say to the butterfly?

**A:** "You'll never get me up in one of those things!"



## The daily (math) news

What can your youngster use every day this summer to keep him on his toes for math class? The newspaper. Here are creative ways for him to practice math as he reads the paper:

- See how much math your child can find in today's paper. Have him look through the sections for five different math concepts. *Examples:* high and low temperatures, rainfall amount, page numbers, stock index graphs, television show times. Can he find five different examples tomorrow?
- Use features of the paper to make up math problems for each other. For example, you might ask, "What is the average number of words per paragraph in this story?" Or, "Divide the price of the newspaper by the number of pages in today's edition. What is the cost per page?"



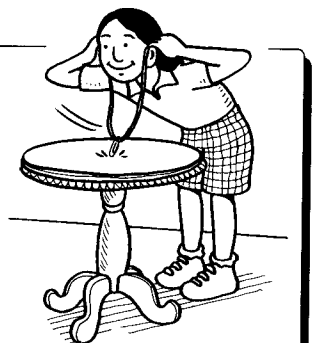
- Pose challenges from the classifieds based on your youngster's interests. If he likes cars, let him find the difference between the highest and lowest prices of the 2010 cars advertised. If he plays an instrument, he could figure out the fraction of music classifieds that are for pianos. Or ask him to write an ad and determine the cost of running it for three days (the cost per word will be listed in the paper). ▣

## Making noise

Let your child explore how sound travels with these activities.

**Hear it.** Have her put a paper clip on the middle of a 3-ft. piece of string. She can loop the ends of the string around her ears and bang the clip into different surfaces (a wood desk, a metal file cabinet). The string will carry the vibration of the sound directly to her ears. If she uses different sizes of paper clips or lengths of string, how does the sound change?

**See it.** Ask your youngster to stretch plastic wrap over the top of an empty can and secure it with a rubber band. Then, she should sprinkle a teaspoon of salt on top. Tell her to make sounds nearby (shout, clap, blow a whistle) and observe what happens to the salt. Explain that sound moves in waves through the air to affect other objects. ▣



# Biking along

When you go on bike rides this summer, take math along! Here's how.

## Plan a route


Have your child practice map skills by plotting out courses for different distances that your family could ride ( $\frac{1}{2}$  mile, 1 mile, 3 miles). She might use a paper map of your town or try Google Maps. *Note:* She can even look at Google Earth to find safe routes with bike paths or sidewalks.



## Time your rides

Let her time her rides with a stopwatch or cell phone. Then, she could figure out how far she biked per minute and how far she could go in an hour.

For instance, if she rode 1 mile in 20 minutes, she would travel 3 miles in an hour ( $60 \text{ minutes} \div 20 \text{ minutes} = 3$ ).

*Idea:* Drive the same distance, and have her calculate the difference in time per minute or per mile for the car vs. the bike. 



## SCIENCE LAB

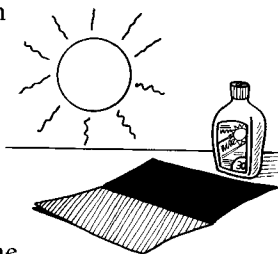
### Sunscreen test

Does your youngster balk at wearing sunscreen? Once he does this experiment, he'll see why he needs it.

**You'll need:** black construction paper, sunscreen lotion


**Here's how:** Have your child fold a sheet of construction paper in half and spread sunscreen on one

half. The other half will be unchanged and act as the *control*. Let him put the paper outside in the sun and check it each hour through the afternoon.



**What happens?** The side with sunscreen will remain darker. The side without sunscreen will fade much more.

**Why?** Sunscreen blocks the sun's ultraviolet rays and protects the paper—and your youngster's skin—from its effects.

**Variation:** Test various strengths of sunscreen to see the difference. Your child could fold two sheets of construction paper in half, apply a different SPF level to each section, and repeat the experiment. 

## OUR PURPOSE

To provide busy parents with practical ways to promote their children's math and science skills.

Resources for Educators,  
a division of CCH Incorporated  
128 N. Royal Avenue • Front Royal, VA 22630  
540-636-4280 • rfeustomer@wolterskluwer.com  
www.rfeonline.com


## MATH CORNER

### Outdoor measurement games

With a hop, skip, and a jump, your child can practice measuring—and spend time enjoying the nicer weather outside. Try these ideas:

- Hold a Measurement Olympics. Carry a Frisbee and various balls to a field. Take turns throwing or kicking each one. After each throw or kick, your youngster can use a measuring tape to measure how far it went. Who can toss a Frisbee or kick a soccer ball the farthest?

- Use a broom for a limbo stick, turn on the music, and play a game of limbo. Each time someone is knocked out (touches the broomstick while trying to go under), have your child measure the height from the ground to the stick. What is the winning height?

- At your next picnic, line everyone up for a watermelon seed-spitting contest. Your youngster's job is to measure and find the champion spitter! 



## Q & A Neater numbers

**Q:** My daughter's handwriting is sloppy, particularly when it comes to writing numbers. Does this matter?

**A:** Actually it does. This may surprise you, but many mistakes that students make on math problems are caused by sloppy number writing.

With messy handwriting, your child can probably still read the word because of the letters around them. But if she misreads a digit in a math problem, she's likely to get the problem wrong.

You can turn practicing into a family activity. Create dot-to-dot numbers for each other to join. Or write numbers and ask your youngster to trace over them with different-colored markers.

Also, a common problem is not lining numbers up properly in math problems.

Have your daughter do math calculations on graph paper, writing one number per square. That will get her in the habit of lining up numbers the right way. 