

# Keep math and science fun

*Future jobs depend on it!*

By SHARON MACGREGOR

**F**or every field, an analytical mind is required," says Moira Tolan, associate professor of business at Mount St. Mary College in Newburgh. "Working out problems in algebra, geometry, chemistry and physics provides one with a problem-solving system that can be transferred to other areas of life."

While the younger grades remain captivated with math and science, something happens to students when they reach the tweens and beyond.

It's like these subjects become the equivalent of eating vegetables — they may realize it's good for them but simply don't like the taste.

So, while teachers have their work cut out for them in keeping these subjects fresh and interesting during the school day, here are ways parents can keep the learning going from early learners through high school.

*Cover Kid, Taina Diaz of Newburgh, loves math & science.*



photo Visual Concepts Photography [jeremylandolfa.com](http://jeremylandolfa.com)

## Make learning part of play (pre-school, ages 3 to 5)

Remember "The Count," on Sesame Street, the lovable fang-toothed and caped character who simply loved counting objects around him? Just counting items around the house, see if you and your child come up with the right number. Empty your change purse and count the coins. It's also a way to learn about the coins we use everyday. Point out how they differ in size and color.

Everyday items like playing cards can be used to match up the numbers, and shapes. Little ones can start learning what a "diamond" looks like, versus a "heart."

For a scientific idea, take a simple bottle of dishwashing liquid

and a cup of water. Discuss what each item is and what they think might happen if a few drops of the liquid soap were placed in the water. Then, do the experiment, and discuss how adding one thing to another created something brand new.

Or use simple water colors and a paper towel and dab a few drops of the paint onto the paper towel and watch it spread. That is fun way to teach "diffusion." (See sidebar below).

## Exposure, exposure, exposure (age 6 to 12)

These ages love "icky" things and the dramatic. Even games of competition. For math, all you need

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## Impress teens with science!



Marjan Glavac

Marjan Glavac taught in the classroom for over 29 years and put his thoughts into the new book, *Teaching Is... Moments That Inspire and Motivate Teachers to Make a Difference.* (Sima Systems).



He tells of one science experiment that caused great excitement with his teen class. "To show the effects of volume diffusing a heat source, I filled a plastic bag with water and asked if I held a match underneath, would the plastic

melt and douse the flame? All said 'yes.' So, I held the plastic bag over the head of one of my students and lit a match underneath the plastic bag. Nothing happened to the amazement of my students and to my relief." He also recreated the mummification process by replacing 'natron,' found along the Nile, with a combination of salt and baking soda. "We learned that you have to cover the entire chicken with the mixture, otherwise it won't work."

Now with the internet, DVD's and Smartboard technology, Glavac says, "we can do a lot of these experiments virtually, and online. We can interact with scientists and mathematicians online." And virtual techniques used to dissect a frog or any other animal goes a "long way to make science less squeamish for some students."

One of his fondest memories included his students' ingenuity when it came to a blackout. "During a power outage," he writes, "students used their Nintendo DS lite video games to light up the blackboard for fellow students to see the assignments." Now, if that isn't modern science!

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is a pair of dice, or two pair and play a game of "quick adding." The one who quickly add up the total number of dots wins the round.

Ask your tween to measure their room for a pretend "room makeover." How much carpeting would they need to cover the floor?

For science fun: take a cookie recipe and ask your tweens to figure out how to double it, and then make the recipe to let them get a "taste" of their success. Slime is an easy and fun creation, and instantly popular. (See recipe at [hvparent.com](http://hvparent.com))

### Find the wonder and magic in learning

To keep a child's interest in math, the primary goal is to create a sense of wonder, says Carol Lanti, director of Kids Club House in Pine Island. "Help them realize there is more than meets the eye."

"Kids inherently like science," says Joe Sorrentino, Science Department Head for the Pine Bush Central School District. "Science is magic...showing students the wonders and magical side of science excites them."

And, while parents are keeping these ideas going at home, Mount Saint Mary's Tolan says it's also a good opportunity to remind your teens that their career objective, whether it be in the medical or financial field, will require "a healthy understanding of math and science."

*Sharon MacGregor is a freelance writer and columnist living in the Bloomingburg area with her husband and two sons.*

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