

National Survey of Teachers Reveals Students Struggle Most with Math at Back-to-School Time

A survey of middle school teachers nationwide conducted for Raytheon Company reveals that most teachers (67 percent) rank math as the single most difficult subject for students to re-engage in when returning to the classroom.

In addition, most teachers (50.4 percent) polled say students' math skills regress most, compared to other subjects, during summer break. That percentage is more than double the second place finisher – language arts (20.7 percent). Students' math regression and back-to-school struggles force math teachers to spend weeks reviewing and re-teaching math from previous years, they say.

But math teachers offered solutions via the survey, as well: Almost seven in 10 (68 percent) say that parents are the key to helping students get back to math faster. Also, two-thirds of math teachers say that if middle schoolers spend 15 minutes to an hour a week – which is as little as two minutes a day – thinking about math, their math skills would be sharper as they re-immense in their school routine.

"No matter if a middle schooler is already in school or heading back in the coming days, focusing on math skills now – outside the classroom – will help students ease back into math," said Dr. Anne Collins, a mathematician with 20 years teaching experience. "By incorporating math into every day activities, parents can help kids sharpen their skills without the stigma of school work or homework assignments."

The survey's final question asked teachers for their best advice to help parents. Raytheon commissioned Collins, a member of the Massachusetts Math Educators Hall of Fame, to synthesize the open-ended responses into simple tips for parents! They include:

- **Fuel for thought:** No one likes a backseat driver, but challenge your children to calculate the amount of fuel your car uses, or the highest sum of digits in license plates.
- **Double down:** Whether baking brownies or mixing a pitcher of lemonade, have your children double or half the recipe and determine the right amount of ingredients.
- **Go from "bored" to board game:** Board games can empower your children to practice basic math skills. If a game calls for a banker or score keeper, nominate a child for the role.
- **Track the trek:** Give your children an odometer for their bikes and have them record the number of miles pedaled during the day.
- **Shop till you drop:** While at the mall, practice fractions with your children by asking them to calculate prices as if they were saving 10 percent, 25 percent or 40 percent of the price.

To also help students get "Back 2 Math," Raytheon, along with Collins and some of the country's leading math teachers, has developed new interactive tools to help jumpstart interest in math during the final days of summer and the first few critical weeks of the school year. Designed to appeal to sixth to eighth graders, the tools are available on the MathMovesU website (www.MathMovesU.com).

Teachers offer parents tips to help students improve math skills as classes resume

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Raytheon launched MathMovesU last year to help middle schoolers connect the dots between math and a host of “cool” careers from BMX biker and roller-coaster designer to chef and ballerina. Students who visit the program’s website can practice math with heroes, such as speed skater Apolo Ohno, soccer star Mia Hamm, pro basketball player Lisa Leslie and football great Willie McGinest. They can also apply to win prizes, school grants and scholarships. To date, the company has given away \$500,000 in grants and scholarships. Another \$500,000 will be awarded by December.

“Too often students are either intimidated or bored by math,” said Pam Wickham, vice president of communications and corporate affairs for Raytheon Company. “MathMovesU is designed to help middle schoolers, teachers and their parents stay engaged in math by providing them with innovative tools and incentives that make learning about math accessible and fun.”

Raytheon Company, with 2005 sales of \$21.9 billion, is an industry leader in defense and government electronics, space, information technology, technical services, and business and special mission aircraft. With headquarters in Waltham, Mass., Raytheon employs 80,000 people worldwide.

Survey Methodology: The Raytheon MathMovesU Back-to-School survey was conducted online with a sample of 1,032 sixth through eighth grade teachers representing a cross-section of US middle school teachers. All of the educators surveyed taught only one subject area, and each subject was represented by a comparable number of teachers (approximately 200 teachers in each subject area). Research was conducted in July 2006. The overall sampling error for this survey is +/- 3 percent at the 95 percent level of confidence.

¹A complete list of the tips is available at www.MathMovesU.com

Go Figure.

