

# Math Notes

Alabama Math, Science, and Technology Initiative

November 2011

## AMSTI Update

Fall is one of my favorite times of the year! I love back-to-school, football, marching bands, sweaters, hot chocolate, bonfires, soup, blankets, and the beautiful colors of the leaves. I love Thanksgiving dinner and Christmas decorations and spending special times with family and friends. I hope that your fall is filled with beautiful colors and special memories.

AMSTI did not take on any new schools again this year due to budget constraints, but we were able to offer training to newly hired teachers at current AMSTI schools and to those who

changed grade levels. They attended a shortened training (five days instead of ten for middle school), and will receive the rest of their training in their classrooms. I have over 100 hours of this “embedded training” to deliver this year. I am really enjoying working with teachers in this manner!

AMSTI is playing a major part in Alabama’s transition to the new course of study. We are receiving training on ACOS 2010 and can deliver that training to your school. See page 2 of this newsletter for more information.

I have also attended ARMT+ training, and like you, I am anxiously awaiting the new item specifications! I will email a link to them just as soon as I see that they are posted.

I am still available to assist you in many ways. I can model lessons, help you plan, and help you find lesson ideas. Keep reading to see what I have been learning!



Jeanne Simpson  
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## National Middle School Conference

I had the privilege of attending the National Middle School Conference last week in Louisville, Kentucky. It was a wonderful experience, and I highly recommend it! There were several nationally known speakers including Ruby Payne, Rick Wormelli, Arne Duncan, and

Henry Winkler. Several of us presented sessions, which was a lot of fun! The exhibit hall was exciting and overwhelming, and I have a stack of great ideas to share with you. Keep reading...



THOUGHT FOR TODAY

No matter how well planned, how interesting, stimulating, colorful or relevant the lesson, if the teacher does all the interacting with the material, the teacher’s – not the student’s – brain will grow.

Pat Wolfe  
(1996)

# Common Core Standards

In November, the Alabama State Board of Education voted to keep the Common Core State Standards in math and English. The standards were created by the Common Core Standards Initiative, a coalition created by the National Governor's Association and the Council of Chief State School Officers. There has been a lot of debate and controversy about the standards.



The focus of the standards is preparing all students to be ready for college and career. The workforce of the 21st Century requires a different set of skills than those of the past. Colleges are telling us that students are coming to them unprepared for entrance level courses. We are not achieving the results we would like in many of our nation's schools. A set of standards common to all states is a step in the right direction.

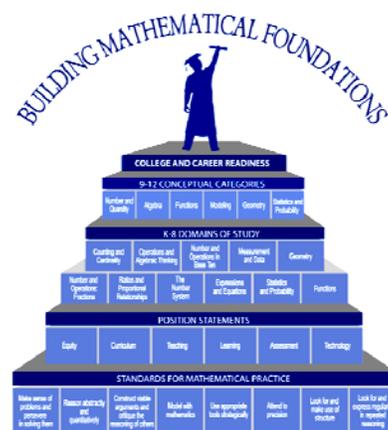
- *Approximately 30% of Alabama's students drop-out before graduation.*
- *8% of jobs will hire high school drop-outs.*
- *56% of those enrolling in a four-year college attain a bachelor's degree within six years.*

The Alabama State Department of Education has completed Phase I training for ACOS 2010. There are 23,214 math teachers in Alabama grades K-12, and 1,222 teachers attended Phase I training this summer. The AMSTI staff has been trained to offer this training, and we have been asked to come to many schools to give you an overview and help you begin implementing ACOS 2010.

Phase II training is expected to begin in January. This training is grade-specific, and I was on the committee that helped prepare the training. Each school system is choosing a math leadership team who will attend Phase II training and share this information with the teachers in their school districts. AMSTI will also be working closely with this training, and we are willing to help in any way we can.

The state department is housing all resources related to ACOS 2010 on the ALEX website. The link to the site is [alex.state.al.us/ccrs](http://alex.state.al.us/ccrs)

This year is a transition year, and next year (2012-2013) begins full implementation of ACOS 2010. You need to be involved in conversations with math teachers in your school and system in which you examine the standards and create a plan to address the many content shifts. AMSTI is here to assist you with this transition. Let me know how I can help you!



## Financial Literacy Education—FREE!!!!

The FDIC's **Money Smart for Young Adults** curriculum helps youth ages 12-20 learn the basics of handling their money and finances, including how to create positive relationships with financial institutions. Equipping young people in their formative years with the basics of financial education can give them the knowledge, skills, and confidence they need to manage their finances once they enter the real world.

Money Smart for Young Adults consists of eight instructor-led modules. Each

module includes a fully scripted instructor guide, participant guide, and overhead slides. The materials also include an optional computer-based scenario that allows students to complete realistic exercises based on each module. The curriculum is distributed on CD.

The **Money Smart Computer-Based Instruction (CBI)** is a friendly and easy to use learning tool that teaches the 10 modules of the Money Smart curriculum through a computer. The CBI can

complement formal classes or enable people to study independently at their own pace. The CBI is for users age 13 and over.

Each module generally takes between 20-30 minutes to complete. Students receive ongoing feedback and, upon successful completion of each module, can print out a personalized certificate of completion.

[www.fdic.gov/moneysmart](http://www.fdic.gov/moneysmart)





I am excited to explore this website and learn from all the resources it contains. You can view the website without becoming a member, but you have to join to participate in discussions. Here is the description from the website:

*The Middle School Portal 2: Math and Science Pathways (MSP2) project supports middle grades educators with high-quality, standards-based resources and promotes collaboration and knowledge-sharing among its users. Educators use MSP2 to increase content knowledge in science, mathematics, and appropriate pedagogy for*

*youth ages 10 to 15. MSP2 employs social networking and digital tools to foster dynamic experiences that promote creation, modification, and sharing of resources, facilitate professional development, and support the integration of technology into practice.*

*MSP2 also includes the development of virtual learning experiences designed for middle school aged youth through which young people increase their ability to explore, discover ideas, problem solve, think critically, communicate, use technology in a productive*

*and responsible manner, and become globally aware. These experiences will help them become aware of educational pathways that lead to careers in science, mathematics, and technology.*

In addition to the social networking tools, you can find webinars, lesson ideas, great math problems, technology resources (free!), articles, science connections, etc.

The web address is

<http://www.msteacher2.org/>



The **Statistics Teacher Network** is a newsletter published three times a year by the [American Statistical Association](http://www.amstat.org/) - National Council of Teachers of Mathematics Joint Committee on Curriculum in Statistics and Probability for Grades K-12. Past issues are archived online at <http://www.amstat.org/education/stn/index.html>

Are you worried about the statistics objectives in ACOS 2010? Check out the Statistics Education Web's collection of K-12 statistics lesson plans at <http://www.amstat.org/education/STEW/>



## Math for a Cause

Join thousands of schools around the country taking part in the St. Jude Children's Research Hospital Math-A-Thon® program this school year. Math-A-Thon is a free, education-based program for grades K-8 that benefits St. Jude Children's Research Hospital while helping kids improve their math skills. The program is designed to complement existing curriculums while teaching students the importance of helping others.

You can join the fight against childhood cancer by signing up today at [www.mathathon.org](http://www.mathathon.org).

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[www.amsti.org](http://www.amsti.org)

The mission of the Alabama Math, Science and Technology Initiative is to improve math and science education in Alabama so all students develop the skills necessary for success in post secondary studies and the work force.

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## Standards of Mathematical Practice

The state department has suggested that math teachers begin making the transition to ACOS 2010 by working to implement the Standards of Mathematical Practice. Don't try to add them all at once. Choose one to focus on for a few weeks. Once it becomes comfortable for you and your students, begin working on another one. Here are a few suggestions from *Activating and Engaging Habits of Mind*, Costa & Kallick (2000):

### **Make sense of problems and persevere in solving them.**

When students approach a problem, they often have the misconception that there is "one best strategy." Once that strategy does not work, they give

up in frustration. People persist because they can draw on multiple ways to solve problems. If "Plan A" doesn't work, they back up and try "Plan B." Therefore, teachers must celebrate multiple ways of finding solutions...It is better to teach students three ways to solve one problem than it is to teach them one way to solve three problems...Teaching persistence is a matter of teaching strategy. Persistence does not mean just working to get it right. Persistence means knowing that getting stuck is a cue to "try something else." (p. 74)

### **Attend to precision**

Instead of marking answers right or wrong on a student's paper, write the

number of errors at the top of the paper and allow the student to find and correct her mistakes. Another useful strategy is "three before me." No paper should be turned in to the teacher without being checked at least three times. Organize students into teams of four so that they have three other people to share responsibility for striving for accuracy. (p. 83)

Many times, students' and adults' oral language is filled with omissions, generalizations, and vagueness. Probe students' responses to encourage the use of correct vocabulary and ask them to support their assumptions with valid data. (p. 86)