



## Kentucky Council of Teachers of Mathematics

March 2006

### Message from the President

It is hard to believe that the school year is half over. Where did the time go? All of us have been busy preparing the best possible daily lessons in the interest of our students' success. We are always looking for good materials. If you have not already looked at the NCTM Illuminations website (<http://illuminations.nctm.org/>), I encourage you to do so. It contains many good lessons for all subjects and grade levels.

We welcome our newest Board members who took office in January 2006. Treasurer: Barbara Jacobs, retired; College Vice-President: Beth Noblitt, Northern Kentucky University; and Elementary Vice-President: Leslie Robertson, Anne Mason Elementary. Both Beth and Leslie were re-elected; Barbara is new to the Board. Thanks to all of you for contributing your time and talents to KCTM!

Our next elections will be in September, so begin thinking now about potential candidates for KCTM Board positions. The Offices that are up for election this year are President-Elect, Vice President Middle School, and Vice President High School. KCTM is only as strong as its membership and those willing to share their expertise. So please consider running for an office. Watch for the Call for Nominations.

The fall 2005 KCTM conference was successful! We had about 300 attendees with a total of 67 breakout sessions. The fall 2006 conference will be held at Anne Mason Elementary, Georgetown, on September 30. Check the KCTM website (<http://www.kctm.org/conference.html>) for details, including online speaker forms. Direct any comments or questions to our Conference Co-Chairperson, Maggie McGatha ([maggie.mcgatha@louisville.edu](mailto:maggie.mcgatha@louisville.edu)).

Looking for other professional development opportunities in fall 2006? Consider the September [NCTM Regional Conference in Chicago](#).

Hope you enjoy this edition of the KCTM Newsletter. If you have any comments or questions, please contact: Amy Herman ([aherman1@jefferson.k12.ky.us](mailto:aherman1@jefferson.k12.ky.us)) or me ([foletta@nku.edu](mailto:foletta@nku.edu)).

Respectfully yours,  
Gina Foletta  
KCTM President  
[foletta@nku.edu](mailto:foletta@nku.edu)

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### Open Response Integration in the Math Classroom

Are your students having difficulty scoring "4s" on your math open responses? Here are some techniques I use in my own classroom that yield wonderful results from my students.

**1. Talk the talk!** You can use open response type language in your classroom everyday without ever having to make a copy or students having to pick up a pencil. For example, write a math problem on the board and ask students the following questions?

- a. Who thinks they can TELL me a way we can go about solving this? (take answers)
- b. Okay, now who thinks they can SHOW me a way to solve it? (allow a student to come up and work it out)
- c. Who can TELL me another way?
- d. What math words did he or she use when they told me how and what they could do?

By talking the talk, your kids will readily respond in writing to similar open responses on paper. Vary your questions to resemble Open Response type questions like:

Show me two ways?

Justify why the answer is correct.

Who is right? Why or why not?

**2. Show and Tell** - This is the most effective way to ensure your students have included all the things necessary to score a four! I tell my students they must first SHOW me their work and then TELL me what they did and why. So many times, students simply put down the answer without supporting it.

**3. Check over your work with a calculator.** - Although students need to show the mathematical processes they use on paper. It is vital to get your kids checking over their work with a

calculator. A "4" is blown with one incorrect part.

**4. Can't find the time??** Use open response questions as bellringers. Monday (part A), Tuesday (part B) and so on. You'll be able to squeeze in some practice this way.

**5. Make it a team effort!** Have students work in pairs or small groups to solve open responses weekly. You'll find you have more time to expose your students to this type of writing and they will learn from each other. I typically give them chart paper for this so that they can write together.

**6. Make them a regular part of how you assess.** - I give two open responses with every unit assessment, in every subject. This is not only a great way to find out what students are thinking about in terms of math, it helps build their endurance for the statewide assessment. It will also give you more insight than just having them solve algorithms or story problems.

**REMEMBER, open response type questions are about teaching students how to communicate their ideas in writing. By giving your students multiple opportunities to practice them, you are teaching them a life skill!**

**Submitted By:**

**Leslie Robertson**

**KCTM Vice-President - Elementary**

## **Book Review**

Boaler, J. (2002). *Experiencing School Mathematics*. Mahwah, NJ: Lawrence Erlbaum Associates.

At some point in a mathematics teacher's career, he or she questions which approach to use to teach mathematics. Should we teach in a more traditional style, or should we embrace the reforms with which we are presented? This book compares two very different teaching environments in great detail, allowing students to give insights into the ways mathematics teaching affects mathematics learning.

Jo Boaler spent three years examining the experiences of students and teachers in two different schools in England in the mid-1990s. She looked at different aspects of the school's cultures and the students' mathematics learning. The two schools were very similar demographically, but very different philosophically. Amber Hill was a school where the instruction was quite traditional, the curriculum well-specified. Phoenix Park, on the other hand, had more of a reform approach. The curriculum at Phoenix Park was project-based.

While Boaler examines the impact of experiences on students' knowledge, beliefs and mathematical identities, there are two findings from this study that are particularly noteworthy. First, Phoenix Park students did better on mathematics assessments than did the Amber Hill students. A second interesting finding is that there were different patterns of gender-related mathematics performance at the two schools. At Amber Hill, boys outperformed girls significantly.

At Phoenix Park, there were no significant differences in performance between boys and girls. Many more girls at Phoenix Park said they enjoyed mathematics and were good at it than at Amber Hill.

While the schools studied in this book are in England, the themes studies are universal. Boaler's rich, thick descriptions of what took place in classrooms at Phoenix Park and Amber Hill will have the reader unable to put this book down.

Submitted by:

Beth Noblitt

KCTM Vice President - College

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## **KY** Department of Education

### Program of Studies Survey 2006

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The Kentucky Board of Education has asked the Kentucky Department of Education (KDE) to seek input from educators, parents and others as we work to improve and clarify Kentucky's Program of Studies.

Curriculum documents are periodically updated to ensure that Kentucky's current standards are aligned and consistent with national and international standards for content knowledge. KDE recently undertook a similar effort with the Core Content for Assessment.

KDE worked for several months with teams of teachers representing the entire state, all grade levels and content areas. Over 6000 Kentuckians participated in our online review of that document. Now it is time to update the Program of Studies, based on the earlier work with the Core Content for Assessment.

Would you please take a few minutes to review the proposed revisions for your grade and/or subject area of interest, and to share your thoughts with KDE? Go to the following site to provide input.

<http://www.education.ky.gov/KDE/Instructional+Resources/Curriculum+Documents+and+Resources>

**For more information contact:**

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### **News from NCTM**

#### **NCTM 2006 Annual Meeting and Exposition**

St. Louis, Missouri

April 26-29, 2006

<http://www.kctm.org/NewsMar06.htm>

6/3/2008

**Asking Questions – Generating Solutions****Meeting Facilities:** America's Center, Renaissance Grand Hotel St. Louis, Adam's Mark Hotel**Hosted by:** Missouri Council of Teachers of Mathematics, Mathematics Educators of Greater St. Louis  
**Registration** Preregister by March 21 and save

**NCTM 2006  
Annual Meeting  
and Exposition**  
April 26-29, 2006 • St. Louis, Missouri

**Hotel Reservations** Reserve your sleeping room by March 27

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**Speak at an NCTM Conference**

Thousands of educators make presentations every year at NCTM conferences. Share your teaching ideas and practices by presenting a session at an upcoming annual meeting or regional conference.

**Annual Meetings and Expositions**

City	Date of Conference	Proposal Deadline	Submit Proposal
Atlanta, Georgia	March 21-24, 2007	May 1, 2006	<a href="#">Proposal Form</a>

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The **University of Chicago School Mathematics Project** (UCSMP) is looking for schools to field test their first edition of *Pre-Transition Mathematics* for students in grades 6 or 7, and their third editions of *Geometry* (grades 9 or 10) and *Advanced Algebra* (grades 10 or 11). The field tests will take place during the 2006-07 school year. For more information or to download an application, visit [socialsciences.uchicago.edu/ucsmp/testsites.html](http://socialsciences.uchicago.edu/ucsmp/testsites.html), or contact Denisse R. Thompson, Director of Evaluation; phone (773) 702-8775; e-mail [denisse@uchicago.edu](mailto:denisse@uchicago.edu).

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Math Solutions Professional Development offers a **free quarterly online newsletter** with K-8 classroom lessons; articles by Marilyn Burns; reviews of publications; and information about 5-day courses nationwide. Professional development planning tools for administrators are also available. For more information, visit [www.mathsolutions.com/newsletter](http://www.mathsolutions.com/newsletter).

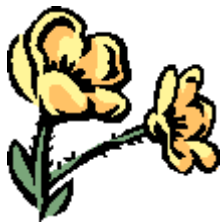
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### Do You Know the Top 10 Reasons for Learning Math?

KCTM would like to make a t-shirt and poster that would list the top 10 reasons for learning mathematics. We are looking for any suggestions.

Please send your suggestions to Kathy Montgomery at [kamontgo@fayette.k12.ky.us](mailto:kamontgo@fayette.k12.ky.us)

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**Affiliate News****GLCTM Spring Program**

April 18, 2006

At *Junior Achievement of Kentuckiana*  
West Muhammad Ali Blvd

6:00 Light Supper & Dessert  
6:30 Awards Program Begins  
7:00 – 8:00 Junior Achievement Program in Finance Park

Outstanding mathematics teachers and students in our area will receive awards of recognition at this meeting. In addition, Junior Achievement will provide a program to inform us all about opportunities to work with them. In particular, J.A. will share ways that teachers and parents can expose students to mathematical connections in business and government settings.

For more information, call Sue Fountain, (502) 485-8292

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### **Minutes of KCTM Board Meetings**

[November 19, 2005](#)

[February 4, 2006](#)