



UETCTM News

First Spring Meeting

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Tuesday, February 9, 2010

4:00-6:00

Volunteer High School

Hosted by Hawkins County Schools

**See Meeting Agenda on Page 2-3.*

A Message from the *P*resident

I asked a group of teachers recently what they believed about mathematics education. Most were able to respond quickly and confidently. After the group discussed various responses, I asked them if what they are doing in the classroom with their students connected to their response. Of course, as any good mathematician would require, I also asked for proof.

It is easy to say the words we think others want to hear. It is easy to hold a belief system close to our heart. It is not so easy to live that belief. "I told my students ____." The word "tell" rarely is used in a belief statement. "The curriculum moves too fast," comes out of one side of our mouth, while "students do not know their multiplication table," comes out of the other. How often do we give students the opportunity to "clean-up" their act?

I challenge us all to revisit our beliefs in math education and find proof that we practice what we preach. If we cannot find this proof, we need to rethink our practices. If you say all students can learn, then make sure they do. If you say that students don't know their multiplication facts, then become responsible and help students bridge that gap. If you say that the curriculum moves too fast, rethink the presentation of material. Is there a more effective arena in which students can be successful?

Finally, share your successes and struggles. We have a strong group of teachers in Upper East Tennessee. Use the relationships you build to become the teacher that your students deserve.

Val Love

Middle School Math Coach
Kingsport City Schools

☎ (423) 943-2704

✉ vlove@k12k.com

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UETCTM First Spring Meeting Location:

Volunteer High School
1050 Volunteer Blvd.
Church Hill, TN 37642
(423) 357-3641



UETCTM Meeting Agenda: Tuesday, February 9, 2010

Location: Volunteer High School Library

4:00-4:30

Social Time/ Snacks

*Snacks provided by HCS presenters and Volunteer High School Mu Alpha Theta student organization

4:30-5:00

Business Meeting

Location:

Volunteer High School's NEW Freshman Academy Wing

5:00-6:00

Breakout sessions

Session 1:

(K-2 Teachers) HANDS ON MATH Room 907

This hands-on session will consist of two parts. The first will be to play games using cards and dice to help young students be successful in basic operations, number sense, and place value and graphing. These ideas were presented at NCTM Nashville by Jane Felling from Box Cards and One Eyed Jacks, Edmonton, Alberta, Canada. The second part will be to make some ideas for math activities using healthy recipes that students can make themselves. These activities were presented by Cynthia L. Cliché, math consultant from MTSU. Suggestions for math applications as well as literature tie-ins will be shared. Participants will receive a CD of all materials.

Presented by: Lori Allen (allenl@hck12.net), Regina Russell (russellr@hck12.net), and Karen Sexton (sextonk@hck12.net) - Joseph Rogers Primary, Rogersville, TN

Session 2:

(3-5 Teachers) MATH GAMES Room 906

A compilation of math games learned from the most recent NCTM Nashville conference will be shared/demonstrated (Race to the finish, place value, card games, factoring, fraction island). Teachers will receive a packet with multiple lesson plans/black line masters.

Presented by: Laura Feagins (warnerl@hck12.net) - Carters Valley Elementary School, Church Hill, TN; Amy Glass (glassa@hck12.net) - Surgoinsville Middle School, Surgoinsville, TN. Assisting - Carter's Valley Elementary School Math Teachers.

(Continued)

UETCTM Meeting Agenda: (Continued)

Session 3: (6-8 Teachers) MATH ACTIVITIES Room 905

A compilation of math activities learned from the most recent NCTM Nashville conference will be shared/demonstrated. Teachers will receive a packet with multiple lesson plans/black line masters.

Presented by: Kris Lumpkins (lumpkinsk@hck12.net) - Church Hill Middle School, Church Hill, TN; Karen Davis-Beggs (davisbeggsk@hck12.net), Morris Rogers (rogersm@hck12.net), Molly Bolton (molly.bolton@hck12.net) - Surgoinsville Middle School, Surgoinsville, TN.

Session 4: (7-12 Teachers) STATISTICS PROJECTS Room 904

An overview of hands on projects for use in statistics courses as well as supplemental lessons for Algebra 1 and lower grade to meet the new TN mathematics standards Statistics strand.

Presented by: Jade Overton (overtonj@hck12.net) - Volunteer High School, Church Hill, TN

Session 5: (7-12 Teachers) SLOPEZEE Room 903

If you like YAHTZEE, you'll love SLOPEZEE. The new TN math standards introduce slope now beginning in 7th grade. However, this skill is used in all future math classes. Teachers will play a slope game modeled after the game of YAHTZEE developed by two area math teachers. Participants will receive handouts on three ability levels. Come play with us:

Presented by: Tara Harrell (tara.harrell@hck12.net) - Hawkins County Schools Math Specialist; Kris Krautkremer (kkrautkremer@k12k.com) - Ross-n-Robinson Middle School Math Interventionist.

Session 6: (Algebra 1 Teachers) THE NEW ALGEBRA 1 Room 902

Here we will concentrate on how to address the changes in the new TN math standards. We will explore ways to make learning algebra accessible to ALL students by using learning tools such as graphic organizers, link sheets, webs, and more. In addition, an end of the year Children's Book Project idea will be shared for that "after the EOC" time. Student work will be shared and all participants will receive a packet of lesson plans/ black line masters.

Presented by: Christy Free (creehc@hck12.net), Misty Armstrong (misty.armstrong@hck12.net) - Volunteer High School, Church Hill, TN.

** Assisting in today's activities will be the HCS student organization - Mu Alpha Theta math honors society.*



Alle Anfänge Sind Schwierig

By Jessica Willis

Washington County, Lamar

My first period class my freshman year of high school was German I. My teacher had various common sayings posted around the room, each written in German. The one that immediately caught my attention was "Alle Anfänge sind Schwierig". At the time, I had no idea about the German, but my dictionary skills were phenomenal (I'll take this opportunity to thank my second grade teacher, Mrs. Williams!). So, I used my brand-new, handy-dandy German dictionary to figure out what this phrase meant--All Beginnings Are Difficult. Voilà! I had learned my first German phrase!

In retrospect, I can see that that discovery was full of irony. I have always been a bit resistant to change, to say the least. My memory is filled with examples of my mother trying to convey the message to me: all beginnings are difficult. Some of those times linger in my mind... my first day of kindergarten, my first day of middle school, my first day of high school, my first day of college, the first day of my first real job, my first day of graduate school, the first time I lived on my own, my first day of teaching. After each of these "firsts" I lamented to my mother, convinced that the road ahead was simply too difficult and I would never make it. She always found a way to assuage my doubts and fears, and in one form or another, tried to teach me that "all beginnings are difficult." You know what? Mom was right!

This year in Tennessee, we as math teachers are faced with a "beginning" in the form of new state math standards. It is very easy and even tempting to view this change negatively. Will it mean I have to work harder? Yes. Will I have to spend more time planning? Yes. Will I have to challenge myself? Yes. Will every new lesson go exactly as planned? No. Will it all be smooth sailing? No.

I realize, however, that there is another option. Instead of dreading inevitable changes, I can--and this is such a foreign concept to me--embrace them. So, after much consideration and

some lessons in positive thinking, I am choosing to go against my nature and view this particular change as a much-needed step in the right direction for our students. As I embark on this new journey, though, I will be careful to heed my mother's valuable advice: all beginnings are difficult. With that in mind, I am bracing myself for bumps in the road--for I know that there will be bumps in the road.

This summer I have had the opportunity--through professional development offered by my school system and the Eastman Scholar Mathletes program--to become familiar with the new math standards in a way that would not otherwise have been possible. ■

All Beginnings Are Difficult

Reflection on a Book Study

By Karoline Berg

Washington County, Jonesborough Middle School

In the spring of 2009, I had the opportunity to participate in a book study within my county. We studied *Math and Literature, Grades 6-8*, by Jennifer M. Bay-Williams, Sherri L. Martinie, and Toby Gordon. This was not your ordinary book study. We did not read a book and then come up with interesting questions or topics to discuss with the group. If you have not seen this book, it is a wonderful resource of lessons that are based on children's literature.

The format of the book study was quite simple. First, we each picked a lesson we would like to teach in our class. We discussed the standards and concepts that would be covered by that lesson with our book study group. Next, we presented the lesson to our students. Finally, we went back to our book study group and discussed how the lesson went--what worked well, what didn't work well, what we would change if we did this lesson again. We each did two lessons from the book.

The first lesson I did was based on *Harry Potter and the Sorcerer's Stone* by J.K. Rowling. The students discussed Rowling's description of Hagrid. She describes him as being "almost twice as tall as a normal man and at least five times as wide." Taking this description, we made a prediction on how large Hagrid is. The students devised a plan to compare their heights to their shoulder widths. They put their results on a scatterplot and estimated the line of best fit and its equation. Finally, they made a prediction for Hagrid's size. In the discussion after making their predictions, the students listed reasons why their predictions would be off. Some of these were there were mostly females in my classes, and Hagrid is a male; they were not all fully grown, and Hagrid is an adult.

The second book I presented to my students was

The Village of the Round and Square Houses by Ann Grifalconi. In this story the men live in square houses and the women live in round houses. My task for the students was to find out which house would require more materials if both houses had the same area and each roof had an overhang of 1 foot. The students worked in pairs to do their calculations. There was some discussion on what would be included in the surface area of these figures. Students were able to dissect the houses and the formulas for surface area to calculate exactly what they needed to find the answer.

My students were excited about these lessons. Through using literature, students were presented with real-life problem solving with actual data. This was not repetitive, boring bookwork. The same concepts and standards were covered. Furthermore, doing these tasks required greater understanding of the concepts. It also pushed students' higher-order thinking ability.

This book study was a wonderful chance to collaborate with teachers across our district. Being able to share ideas with other teachers is a great learning experience. My school is so small that it makes it hard to talk with other math teachers. We have many of the same challenges in our classrooms. We were able to share our best practices on how to approach these challenges.

Because of this book study, I was able to see most of the lessons out of *Math and Literature, Grades 6-8*. I would probably not have had the opportunity to read through the book in its entirety. When the opportunity came along, I taught other lessons from this book with the same success I had with my first two lessons. ■

A Developing Milestone

By Amanda Barrett

Kingsport City, John Sevier

As a middle educator, I never took into perspective how important developing essential math concepts and skills and a love for mathematics at an early age was the foundation for a successful math student until two-and-a half years ago. I have taught middle school mathematics for the last six years and geared my instructional practices to be relevant and rigorous for all students. I focused on what we as educators all focus on, providing a rich classroom environment in which students develop a love for learning and a passion for life-long learning while mastering the necessary concepts at that particular grade level. However, the following question would constantly be posed in the back of my mind: "Why is it that some of my students have that instantaneous drive to be successful and competent in math while others seem to be complacent in being an average or below average math student?"

I wondered if the students who had developed all the necessary math skills at each grade level were the students who loved math and the students who somehow fell behind were the students who despised math. This thought resulted in a small investigation that I began with one of my classes that consisted of twenty-five eighth-grade students. I began to research these students' past history of math back to their years as a toddler. I took a survey to see how many of my students attended child care programs, how many attended pre-school or a pre-K program, how many were read to at home, and how many of them had help with homework. These were just a few of the questions I asked in conjunction with several more questions that I thought might be relevant data. I also analyzed standardized test scores and socio-economic background data trying to find some

correlation where these students either developed the drive to be successful in math or the decision in their mind that they were just average or below average math students.

It wasn't until two-and-a-half years ago I finally formulated my own opinion based on one student's question on why students perceive math differently. The question was quite simple and came from a very intelligent young man in my eighth-grade advanced class. At the time he asked the enlightening question, I was six months pregnant with my first and only child. He asked, "now that you are having a baby, are you going to teach your

child to love math like you have taught us, too?" After his question, I felt honored and somewhat speechless. I thanked the young man for his comment

and informed him that I would certainly teach my own child the importance of math just like I have taught all my students. With his comment in mind, I formulated my hypothesis based on his question.

Regardless of a student's background, it is important as a math educator to teach children from an early age the importance of math and how we use it in our daily lives. Students will then develop their own opinion on how they perceive math, but we can help foster a positive attitude towards math. The students who may dislike math or perform below average may develop a love for math based on one teacher alone. We must strive to challenge students and develop an interesting curriculum that will keep students interested and motivated. All students can be successful and competent in math and we as mathematic instructors must open the door and help to guide all students to be successful, life-long learners with a love of math. ■

A Love of Math

Request for Article Submissions

We are always looking for people to contribute articles to our ongoing “Math Perspectives” series. Every month, we would like four people to write for the series: a preservice undergraduate student, a preservice graduate student, a current classroom teacher, and one of our local math coordinators. Each person will voice their opinions, concerns, or observations upon a particular aspect of teaching mathematics. There are no set topics for this series.

Another section will be included in the next volume dedicated to mathematics problems. We are looking for people to submit favorite problems focused on various grade bands.

If you or someone you know would like to contribute to this column, please contact the Newsletter Editor, Ryan Nivens.

Newsletter Editor:

Ryan Nivens, Ph.D.

ETSU
Department of Curriculum
and Instruction
Box 70684
Johnson City, TN
37614-1709

nivens@etsu.edu

Assistant Editor:

Amy L. Karlsson

ETSU Graduate Assistant

zall10@goldmail.etsu.edu

Officers of UETCTM for 2009-2010

President:

Val Love

Math Coach
Kingsport City Schools

(423) 943-2704

vlove@k12k.com

President Elect:

Ryan Nivens, Ph.D.

Assistant Professor
Center of Excellence in Mathematics
and Science Education
East Tennessee State University
Johnson City, TN 37614

(423) 439-7529

nivens@etsu.edu

Past President:

Dayna Smithers

Division of Mathematics
Northeast State Technical
Community College
PO Box 246
Blountville, TN 37617

(423) 354-2502

dbsmithers@northeaststate.edu

Secretary:

Kris Krautkremer

Robinson Middle School
Kingsport City Schools

kkrautkremer@k12k.com

Treasurer:

Jerry Whitaker

Mathematics Curriculum
Coordinator
Washington County Schools

(423) 434-4903

whitakerj@wcde.org





UETCTM

Membership Application

Complete and mail to:

Jerry Whitaker
Mathematics Curriculum Coordinator
Washington County Schools
405 W. College Street
Jonesborough, TN 37659

Membership Fee: \$10.00

Make check payable to: UETCTM

Name: _____

Home Address: _____

Home Phone: (____) _____ - _____

School: _____

School Address: _____

School Phone: (____) _____ - _____

Email Address: _____