



UETCTM News

First Meeting for the Fall

The first meeting this Fall of the Upper East Tennessee Council of Teachers of Mathematics will be held at Daniel Boone High School. Refreshments will be served starting at 4, with a business meeting at 4:30. By 5:00 the breakout sessions will start and the entire meeting should be over at 6.

Start planning for the Franklin Math Bowl Competition. It will be held on November 14, 2009 at ETSU. Watch the next issue for more information.

And welcome to our new assistant newsletter editor Ashley Bruner. Ashley is a graduate student in ETSU's Master of Arts in Teaching (MAT) program. She is taking the place of Casey Anderson who is student teaching through ETSU's MAT program.

IN THIS ISSUE

Next Meeting	1	Franklin Math Bowl Needs Test Writers ...	5
Using Cooperative Learning to Teach Mathematics to Students with Learning Disabilities	2	UETCTM Membership Form	6
Mark Your Calendar	4	Officers/Contact Info	7
Request for Article Submissions	4		
NCTM Membership and Journal Subscriptions	5		



“Using Cooperative Learning to Teach Mathematics to Students with Learning Disabilities”

In our classrooms today, we as teachers face many obstacles when it comes to reaching all of our student’s needs. All teachers know that a class is set up with many different types of diverse learners. One of the ways to help reach a group of diverse learners is to use differentiated instruction. This reaches all the different types of learners one may have in the classroom. Teachers also face having students with learning disabilities. Many times in teaching, I have found that many students seem to have difficulty in math, but it seems that each year, I always have one or two students that seem to never comprehend any part of a mathematical lesson. Most of the time, these students have learning disabilities that hinder them from comprehending certain skills he or she may need in order to be successful in math. One of the ways to help these students succeed in math is to have them work in cooperative learning groups. Not only will this help students with learning disabilities, but it will also help the entire find their individual “niche” in mathematics.

According to the NCTM, learning environments should be created that promote active learning and teaching. Cooperative learning groups promote active learning through investigations and problem solving. It helps students

understand and make connections between the concrete and abstract levels of instructions. Cooperative learning also promotes communication within a team and organization of tasks that need to be accomplished. Cooperative learning consists of three components: “lesson preparation,” “lesson instruction,” and “lesson evaluation.”

It is very important that each lesson is prepared in a way that students always know what to do to finish the task that is at hand. The teacher needs to always make sure that each person’s role is identified in the group and that the groups are established by the teacher, not the students. This helps with classroom management and also making sure that students are put together in such way that they are not afraid to help and benefit from each other. Teachers need to design activities that promote “practicing, experimenting, manipulating, reasoning, and problem solving.” There are five basic elements that need to be addressed to the students before cooperative groups are formed: “positive interdependence,” “face-to-face interaction,” “individual accountability,” “group behavior,” and “group processing.” Each group member needs to have a role in the team. If each student has a role, it will help the student’s (continued on next page)

self esteem and will also keep all students involved, which sometimes does not happen with students with learning disabilities because they are afraid of being ridiculed.

In order for students to understand the activity that is being completed in the group, the class needs to receive direct instruction by the classroom teacher, before forming learning groups. This gives the students an understanding of the activity that is going to be asked of them to complete. If students have a prior knowledge of what is asked of them, the teams will have a greater success.

Clarification is an important part of learning groups. The teacher's role in instruction is to have students transition quickly after direct instruction, have all materials ready for use, monitor student progress within the groups, and emphasize the occurrence of collaborative behaviors.

Once an activity has been finished, it is very important that each student in the group is evaluated by the teacher and by the students in the group. If students have a role in the learning group, each student should evaluate their team members along with the teacher evaluating the students for their understanding of the lesson. This

gives the students a sense of importance of the lesson. It also shows that he or she is responsible to not only themselves, but all of the other members of the group.

Overall, students with learning disabilities are just like any other student in the class. If students are divided up in learning groups, this gives every student a chance to use what he or she may be strong in to help the group become successful in the task that (continued on next page) may be at hand. Each student has a gift he or she can bring into a group. If a student is able to use his or her gift, he or she may build self confidence and also be able to overcome their learning disability not only in math but also in other subjects.

*~Brandon Mckee is a teacher in
Washington County at Jonesborough
Middle School*

Mark Your Calendar NCTM Conferences

Annual Meetings & Exposition

San Diego - April 21-24, 2010
"Connections: Linking Concepts and Context"
Speaker proposal deadline is May 1

Regional Conferences & Expositions

2009

Boston - Oct. 21-23
Minneapolis - November 4-6
Nashville - November 18-20
(In Conjunction with TMTA's
annual meeting)

Events Taken from
NCTM Newsletter (45.6)

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 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 at nivens@etsu.edu.

NCTM Membership and Journal Subscriptions

Are you a member of NCTM (National Council of Teachers of Mathematics)? As an NCTM member you can receive one or more of four outstanding journals depending on your interests: Teaching Children Mathematics (geared towards elementary school), Mathematics Teaching in the Middle School, Mathematics Teacher (for high school teachers), or Journal for Research in Mathematics Education.

In addition, the NCTM web site has a number of members-only features including an online journal devoted to more high-tech tools for all levels, and NCTM publishes many books, monographs, and yearbooks of interest. Now when you join or renew an existing individual membership online, you can choose to have a rebate sent back locally to UETCTM. New NCTM members or members renewing after a lapse of at least a year earn UETCTM a \$5 rebate; renewing NCTM members earn us a \$3 rebate. Go to www.nctm.org for more information, and when you fill out the online membership form, select Upper East Tennessee Council of Teachers of Mathematics from the drop-down menu for the state.

Franklin Math Bowl Needs Test Writers

The Franklin Math Bowl is a middle school math contest held on a Saturday in the early part of November on the ETSU campus. It is co-sponsored by the ETSU math department, University School, and UETCTM. Each year we have a test for 6th, 7th, and 8th grade math plus Algebra I. The test consists of 25 multiple-choice questions. Sample tests can be found on the Franklin Math Bowl web page at <http://www.etsu.edu/math/fmb/>. We need some volunteers to write tests. (Or if you don't think you could write a test, at least contribute some questions.) Obviously we can't use middle school teachers who prepare their students for the test, but anyone else is eligible. Typically we ask writers to have their tests written by early September.

If you would be willing to help, have further questions, or want to see test writer guidelines, please contact Daryl Stephens, director, at 423-439-6973 or by email at stephen@etsu.edu. Thanks in advance for your help!



UETCTM Membership Application

Complete & return to Floyd Brown with a check for \$10 made payable to UETCTM. Completed Application and check may be mailed to Floyd Brown, Science Hill High School, Mathematics Dept., 1509 John Exum Parkway, Johnson City, TN 37604

Name: _____

Home Address: _____

Home Phone: (____) _____

School: _____

School Address: _____

School Phone: (____) _____

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Officers of UETCTM for 2008/2009

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to be elected at the September meeting

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If you are reading this newsletter on paper, you're missing out on all the color! Visit our web site (www.uetctm.org) to see the newsletter as a full-color PDF file with clickable links.

ETSU

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