



VOLUME 12 ISSUE 1

WWW.UETCTM.ORG

SEPTEMBER 2011

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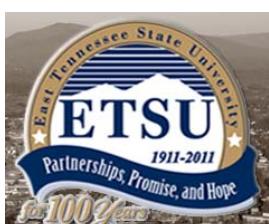
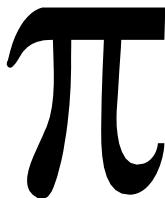
MATH FUN

How many of the following statements are correct?

1. Pi is the ratio of the Circumference to the Diameter of a Circle.
2. $\pi = 3.14$
3. $\pi = \frac{22}{7}$
4. Pi is an irrational number

Only statements 1 and 4 are correct.

3.14 and $\frac{22}{7}$ are only approximations for π



UETCTM MEETING
Friday, Sept. 23—24, 2011

TMTA Conference
East Tennessee State University
Saturday, 11:30 a.m., Affiliate Meeting



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President's Message

Welcome to Fall 2011 and the wonderful world of mathematics! This is an exciting year for UETCTM. We are hosting the annual TMTA conference at East Tennessee State University September 23—24, and I encourage everyone to attend. As a co-sponsor of the annual conference, UETCTM would like to thank the Department of Curriculum and Instruction at ETSU for partnering with us to make this a very successful event filled with more than 40 different session to attend over the two-day period.

Please check the UETCTM website for future events and meetings. Our monthly newsletter also includes meetings and conferences for math councils in our region and nationally.

Our newsletter article submissions are fantastic this year, as usual, and I hope you enjoy the shared knowledge among our members. This is a fantastic tool for collaboration and includes excellent ideas for differentiating instruction.

Please let me know if you have any questions, comments, or ideas for our monthly meetings or newsletter. I look forward to seeing you this year!

Sincerely,

Ryan Nivens

Center for Excellence in Mathematics and Science Education

Department of Curriculum and Instruction

Claudius G. Clemmer College of Education

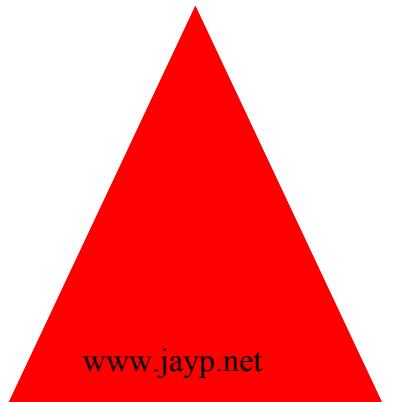
East Tennessee State University

MATH TRIVIA

The largest prime number is 13,395 digits long; more than the number of atoms in the universe.

National Pi Day is March 14, at 1:59. (3/14 1:59)

If you need to remember pi, just count the letters in each word in the sentence: "May I have a large container of coffee?" If you get the coffee and are polite and say "Thank you," you get two more decimal places. [3.141592653...]



www.jayp.net



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MORE THAN ONE WAY TO COOK A CHICKEN

By Buffy Bales
Johnson City Schools, 4th Grade



Iiving on a small farm that raised beef cattle, we had plenty of meat. So, each night for supper Mom would cook some kind of beef: roast, ham-burger, or any cut of steak. There seemed to be a never ending supply of beef.

Chicken, on the other hand, was not so plentiful. Occasionally my mom would splurge and buy a chicken to fry. Not the kind already cut up, but the whole chicken that had to be severed by a very sharp knife. Mom, and only Mom, could wield this deadly blade. Next, she would season and flour it just right then position it in the skillet to fry. Boy, can she fry chicken! It was always crispy on the outside but juicy on the inside. This was the only way my mom cooked chicken, so I grew up thinking that was the only way to prepare it. I have since learned there are many ways to cook chicken and most are much healthier, too.

Many years ago, when I was a student, we were taught that math should be completed a certain way. Sometimes we might ask, "Why do we do it this way?" The reply, more times than not, would be, "That is just the way you do it." I guess we secretly called it "the math rules". Today my students' parents are intimidated when it comes to helping their child with math. Many have been taught only one way to do math problems and their child is always quick to point out, "That is not the way we do it at school."



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For those parents, I like to let them know early in the school year that we look for multiple ways to solve math problems. I also tell the students that maybe their parents know a way we have not discovered yet. I encourage parents to help at home, even if it means their child learns a new way to do things. When this happens, the student can share their parent's way of doing it with the whole class. This keeps the parents involved and happy, and the student gets the help they need at home. Plus, they get to be the teacher for a while at school. This also improves their confidence in math.

As teachers, we need to keep teaching multiple ways to solve problems. We should never be the ones who answer, "That is just the way you do it." Instead let's say, "That is just one of the ways to cook a chicken."

Mom occasionally still makes her fried chicken, but she also has ventured out and tried healthier ways, too. She knows how important she is to me so she is always willing to make the healthier change. As educators, we should always make changes, too, in order to help students become healthier academically.



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WHAT DO TEACHING AND FEEDING CHILDREN HAVE IN COMMON?

By Jenny Galloway
Washington County Schools, 5th Grade



Jlove my kids, but they don't always want to eat what's good for them. I sometimes wonder if parents of previous generations had this same struggle. There weren't nearly as many fast food restaurants in the 1950s. Did kids wrinkle their noses at anything related to vegetables, other than French Fries? While my own kids are relatively good eaters, I've still seen the need to "sneak in" the good stuff. My son's favorite macaroni and cheese just might have a well shredded carrot or zucchini mixed in; spaghetti...well, let's just say it doesn't just have the traditional veggies in the sauce; those chicken nuggets they love...little did they know they're baked! So what does teaching have to do with this?

Just like the fast food restaurants, kids today are surrounded by technology that wasn't available to kids in previous generations. Sometimes kids need a little motivation to devour the good stuff. So why are we so slow to offer what they want while giving them what they really need? While technology use in the classroom is rising, it doesn't take a genius to see we are behind the technology curve in the classrooms. Just like sneaking vegetables in that beloved macaroni and cheese, we can easily cover several standards by offering a computer based activity or game, it just takes some creativity. By the time they figure out there's "good stuff" in there, they will have enjoyed it so much that they won't care to "clean their plates"!



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Here are a few websites that offer games and activities that cover several standards:

all subjects

<http://exchange.smarttech.com>

<http://www.academickskillbuilders.com/games/>

www.softschools.com

<http://www.bbc.co.uk/skillswise/>

math specific

http://www.harcourtschool.com/menus/math_advantage.html

<http://jmathpage.com/JIMSNumberintegers.html>

www.mathplayground.com

<http://mathsnacks.com>



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CAPTURING MATH: A REAL-WORLD PERSPECTIVE

By K. LeAnn Farthing
Sullivan County Schools, 6th



*A*s math teachers, how often do we hear this statement from our students, "When am I going to use this?" During my first year teaching math, I committed myself to finding real-world applications and visuals to show my students where they will use and see math outside of school.

However, this became too tedious and I felt that my students should be involved in this research process of real-world applications. So, I then found myself asking students to draw pictures of real-world applications of the concepts we were learning. Later, I thought, why not take this idea a step further and involve technology?

My idea came together after investigating a website, www.donorschoose.org where teachers post their classroom project ideas and their needed supplies. Sponsored companies then choose a project to support and send the selected teacher the needed supplies for the project. In turn, the teacher follows through with the posted project and sends updates through the Donors Choose website for the companies to see a final result!

My proposed project asks for 6 digital cameras and a digital printer with photo paper. I intend to have students divided into teams at the beginning of the year, where each team member will have an opportunity to take home the digital camera and either film and video or take pictures of math in real-world situations. As students bring back the cameras, they will have to defend their pictures and prove that it applies to math in some aspect, whether it is a concept that we are learning or a previous concept they have learned. I feel that this application will broaden my students' sense of awareness for math around them in everyday life.



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I also proposed that teams be graded by a point system for their creativity and connection to real-world math applications using the following scale.

Level 1 (10 points) – The student recognizes a mathematical concept.

Example: A picture of a rectangular prism (tissue box).

Example Relation to SPI: SPI 0606.4.1 Identify, define or describe geometric shapes given a visual representation or a written description of its properties

Level 2 (15 points) – The student understands a real-world mathematical concept by application.

Example: A picture/film of a student determining the best unit price before making the purchase.

Example Relation to SPI: SPI 0606.2.6 Solve problems involving ratios, rates and percents.

Level 3 (20 points) – The student creates an opportunity for a real-world mathematical concept and is able to show application in the creation.

Example: A film of a student determining which basketball team had the best free throw percentage.

Example Relation to SPI: SPI 0606.2.5 Transform numbers from one form to another (fractions, decimals, percents, and mixed numbers).

Throughout the year, the students' photos will be posted on a bulletin board where they can see progress and see the ideas of others. However, they will not be allowed to use the same concept, but they will be allowed to manipulate the concept or take the application to the next level. I will also have a line graph for each team, adding each team's points as they receive them to show progress. Finally, at the end of the year, I will determine a winning team based on the point system.



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As teachers in general, we often feel loaded down and under pressure to teach the essential skills and procedures to help our students move on to the next level. However, we forget that we need to show our students how math applies to everyday situations and that it is all around us!!!

I feel that this project will take my students' awareness of mathematical concepts around them to a higher level of thinking. I also feel that my students will appreciate math more and become more open to learning about new mathematical concepts.



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DESPERATE TIMES CALL FOR DESPERATE MEASURES! STRATEGIC INSTRUCTION WITH INTERVENTION

By Glynna Warner

Sullivan County Schools, 5th Grade



Dedicated educators struggle for the additional time to finish multiple objectives of their day...be it student learning objectives intended to be fully-met or professional duty objectives that best-complete their "to do" list on any given day.

Wouldn't it be grand if you could meet with those students who needed your extra time at the finale of that subject-area lesson at a time that was convenient for both you and the student(s)?

Parents struggle with their schedules to get their children from point A to point B on a daily basis, but what if meeting with your child's teacher was made accessible to them from their home via the Internet? What if students could spend quality instructional time with their teacher from the confines of their home, and parents could monitor and actively participate in the lesson? In addition, what if confidentiality could be preserved by a process that allows for group participation, along with muted, concentrated interaction that allows the student to work with the teacher in a more isolated fashion?



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The “what if” is answered through webinar instructional practices!

Webinar technology enables students, teachers, parents.....whomever, to engage in conferencing sessions for the objective purpose you establish! For example, you may choose a select group of students who would benefit from additional instructional time with your resources that you cannot implement in the course of your regularly-planned learning day. The remedial, or challenging, activities that you wish you could incorporate into your scheduled day may be postponed and re-scheduled as part of this same learning day through webinars! You may learn more by visiting www.vyew.com (they offer a tutorial).

My students generate ideas before the scheduled webinar for which they would like to receive extra help. The area of need does not have to be conducive to other students' areas of need on any given scheduled night or day for webinar instruction. There is an expressed understanding that we may jump around with topics during any given webinar session. Because this is optional, students may sign out of the webinar once the topic does not meet their individual instructional needs.

Initially, the webinar addresses the general topics that I would like to address, based upon the topics that I feel need to be brought to attention. Once I have set up the webinar session, the webinar company sends an email to the invited participants with direct instructions on how to log into the webinar, when the webinar will take place, and the general topic of the webinar. Participants confirm their intention of attending, and Vyew lets me know, in advance, who is attending my webinar.



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I always secure the last 15 minutes of a Vyew session to present and discuss topics that are not relative to the designated session. This allows students who are curious, inquisitive, or possibly intimidated to ask their question in class to have an opportunity to do so and enhance their learning experience.

When students see their teacher, online from their homes, and willing to help them....it changes things! Oh, and by the way, this wonderful technology enables all webinar participants to see the same computer screen that their instructor sees at the same time! Not only that, but the instructor can open the screen capabilities for the students to interact online with what is being presented on the screen. For example, a particular mathematical problem could be presented, and with the touch of the administrator's allowance (the teacher being the administrator), the students are given full-access to write solutions to the problems, talk about them, demonstrate them, and collaborate with others – online and immediately!

Most of my students have engaged in all that I have presented in this article. This must be presented as an optional activity; you cannot require students to participate in anything after school hours nor in activities that require resources of which they may not have, (e.g., Internet). Not all students participated, but for those that did, they loved this technology, and beckoned when the next webinar would take place! Those same students also accompanied me in teaching other teachers of my school system in professional development sessions, because the benefit of this technology meant enough to them to spend their personal, summer days of vacation to spread the good news of webinar technology!

I hope you will explore the possibilities of webinar technology as a resource to further meet the needs of your student population!



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UPCOMING CALENDAR DATES

UPPER EAST TENNESSEE COUNCIL OF TEACHERS OF MATHEMATICS

Tuesday, October 14, 2011
Liberty Bell Middle School, Johnson City, TN



NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS 2011 REGIONAL CONFERENCES AND EXPOSITIONS

Atlantic City, New Jersey • October 19-21, 2011

St. Louis, Missouri • October 26-28, 2011

Albuquerque, New Mexico • November 2-4, 2011



TENNESSEE MATHEMATICS TEACHERS ASSOCIATION

TMTA Fall Conference
September 23—24, 2011
East Tennessee State University, Johnson City, TN



SOUTHWEST VIRGINIA COUNCIL OF TEACHERS OF MATHEMATICS

Annual Meeting
September 17, 2011
University of Virginia, Wise Campus
Any K-16 teacher of mathematics is welcome to attend. New this year will be various vendors showcasing textbooks and educational products. For registration information please go to www.mcs.uvawise.edu/svctm.

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 submissions 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 issue dedicated to mathematics problems. We are looking for submissions on favorite problems focused on various grade bands.

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

Newsletter Editor

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UETCTM

Membership Application



Mail completed form to:

Jerry Whitaker
Mathematics Curriculum Coordinator
Washington County Schools
3089 Highway 11W
Blountville, TN 37617

Membership Fee: \$10

Payable to: UETCTM

Name: _____

Home Address: _____

Home Phone: (____) ____ - ____

School: _____

School Address: _____

School Phone: (____) ____ - ____

Email Address: _____

The Upper East Tennessee Council of Teachers of Mathematics is an organization for anyone involved in mathematics education from preschool through college in the greater -Cities region. We meet six afternoons per year in various locations across the region. The purpose of UETCTM is to promote excellence in teaching mathematics and to share best practices among mathematics educators.