
Upper East Tennessee Council of Teachers of Mathematics

NEWSLETTER

VOLUME 17 ISSUE 4

FEBRUARY 2017

Announcements
National Conference!
(see p. 2)

Upcoming
UETCTM
Meeting:

March 7, 2017
315 Warf-Pickel Hall,
ETSU
4 p.m. - 6 p.m.
4:00-4:30 Mix &
Mingle, Refreshments
4:30-4:45 Business
meeting and election
of officers
4:45-6:00 Session of
choice.

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NCTM National Meeting: A peerless experience meeting with peers!

**April 5-8, 2017
San Antonio, TX**

Creating Communities and Cultivating Change. That's the theme for this year's annual NCTM meeting, featuring a dynamic lineup of speakers and workshop leaders opening with Jordan Ellenberg, Professor of Mathematics at the University of Wisconsin-Madison and author of two books: *How Not To Be Wrong: The Power of Mathematical Thinking*, and *The Grasshopper King*, a finalist for the New York Public Library Young Lions Fiction Award. Also on the agenda: A special "Ignite" workshop featuring 10 classroom teachers representing K through 12, sharing their passion—and great ideas—to spark new ideas in your classroom!

"It's so awesome and great to be around so many like-minded people who want to do well for their students, and we're all teaching the same content, and we all have the same goals in mind."

**--D'Anyia Brazzell, 12th Grade
Takoma Academy, Takoma, MD**



For more information, see the [NCTM website](#).



Upgrade your instruction with NCTM resources.

Are you getting the most from your NCTM membership? Refine your instruction and rev up your enthusiasm with these valuable resources:



Collaborate & Innovate!

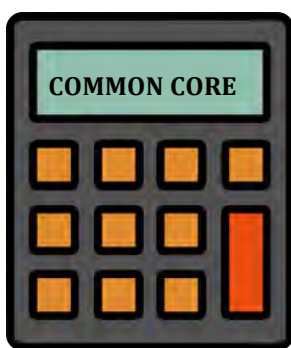
Classroom Resources Collaboration Center is now open.

At the [Classroom Resources Collaboration Center](#), connect and collaborate with other math educators in your grade band to amp up your instruction with new ideas and online resources, and a wealth of engaging math lessons. Collaborate and innovate!

Spanish support at hand:

Principles to Actions: Now available in Spanish

An outstanding aid for teachers and administrators serving Spanish speaking students and parents, the translation, [De los principios a la acción: Para garantizar el éxito matemático para todos](#), also provides an excellent foundation for PLCs engaged in faculty transformation.



A multiplier for Common Core effectiveness:

Teaching and Learning Math with the Common Core

Produced by NCTM and The Hunt Institute, this comprehensive series of [videos](#) helps teachers achieve greater fluency in the integration of Common Core State Standards for Mathematics, covering topics from how to develop a solid foundation for algebra to why developing a conceptual understanding demands a different approach to teaching and learning. Also a great resource for general discussions with parents.

Don't abdicate! Advocate! Tips and tools.

Our lives begin to end the day we become silent about the things that matter."

—Dr. Martin Luther King, Jr.

As a teacher, you're already familiar with the demanding "role call": In your role as teacher, the long hours you spend in preparation and instruction, and many of you have other critical roles as parents and as family and community members. So it may seem impossible to add to the roles you are called to play. However, now more than ever, teachers of math need to step up and step into the role of advocate for math education. Why?



An altogether, and all together, better effort.

Taking on responsibility isn't the same as taking on the whole world. The weight doesn't rest on your shoulders alone. You're in good company with other teacher-advocates.

Toolkit for building awareness:

If you're unsure of where to start, NCTM offers a free [Advocacy Toolkit](#). There's even help in finding your elected officials. ■

Defined, not devalued. When teachers don't define the roles of teaching and instruction, others fill the gap, and may devalue both teachers and teaching. Your knowledge is critical to the debate.

A natural extension. Does the role of advocate feel like a dramatic departure? As a teacher you are already a leader-advocate for students. You are also an expert at spreading knowledge. Advocacy is merely an expansion of a role you already embrace.



"As teachers become more knowledgeable and confident about the process of advocacy, many find advocacy becomes second nature, just as teaching is."

—Dr. Ryan Nivens



MathElites: 2016 Refelections.

By
Danielle Odom

SUMMER 2016: I have thoroughly enjoyed attending the 2016 summer session of MathElites. I have learned many new ideas from both the instructors and the other program participants. I will be entering my fourth year of teaching when the new school year begins. As a teacher, I feel that sometimes I take things for granted that I feel my students should already know or be able to do in our math class.



ORDPA:

A real eye opener

My thought process changed during day 1 when we were taught the numbering system of Orpda. Talk about an eye-opener! I have since discussed this with other teachers as well as my family. This was the best way for our instructor to show us how our students feel when learning a new process.

It's helpful to experience what our students feel when learning a new process.



Moving beyond pencil and paper:

Another thing that I learned is that math isn't always about paper and pencil work. I thought as a teacher that I was doing great things in my class with having a variety of activities for the students to work on outside the paper and pencil process. Man was I wrong! My activities are boring in comparison and do not challenge my students enough. This program made me realize that I need to step it up. I hope this next school year will be much better not only for my students but for myself as well. I have a lot of new planning to do, but it will be worth it.

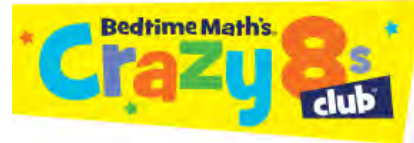
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MathElites: 2016 Refelections. (continued)

One final note: I enjoyed having several opportunities to discuss classroom ideas and strategies with teachers from other districts. From those discussions, I have gained knowledge into activities, resources, and freebies that teachers are constantly looking for to use in class. One great takeaway from this part of the program is the information concerning Crazy 8's Math Club. I have already submitted my application for this program and cannot wait to implement it at our school.

I feel very fortunate to have been selected to participate in the MathElites program. This is definitely one program that benefits not only the teachers but the students as well. Thank you for this opportunity. ■



"I have already submitted my application for Crazy 8's Math Club and cannot wait to implement it at our school."



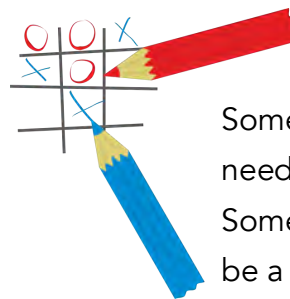
Sometimes a game just needs to be a game.

By
Carter Brown

I always love attending workshops and conferences. Usually the saying goes "if you can take one or two ideas or practices to use in your classroom then it was worth attending." MathElites provided much more than an idea or two. I can honestly say I gained knowledge in math, found ways to enhance some tired lessons and learned some new practices to share with my students and colleagues.

I had spent all of June teaching summer school, so I was kind of tired of school when MathElites began. Most days we played games in various areas in math. I found on those days we had so much fun, and the time had passed so quickly. During the game I was able to talk to my classmates, share ideas, get some needed assistance and often learn a new strategy to complete the game. This made me think about my first graders.

Most of them say they like math. They often ask me about math stations, which is a game-related activity. By putting myself in the "student role" for a few weeks it made me realize that game time is the most enjoyable time of the day. I will revise my math time. I will add additional time to playing games and I will eliminate some recording sheets that I always attach to my games used in math stations.



Sometimes a game just needs to be a game.

Sometimes a game needs to be a time to share thoughts, find ways to help each other, learn new strategies and not worry about recording the answer. Thanks, Jamie Price and MathElites!



Alligators Live in swamps. By Brenda Troyer-White

Teaching primary-age students how to compare numbers using “greater than,” “less than,” and “equal to” symbols and terminology is an important concept in early grades. It is vital that the students be able to look at numbers in concrete, pictorial, and symbolic form AND THEN be able to compare, or tell which number is less than the other, greater than the other, or whether they are equal. As you can see, this involves a two-step process. Further, the numbers may have more than one place-value, which then involves more investigation. Should the student look at the ones places first? The tens? The hundreds?

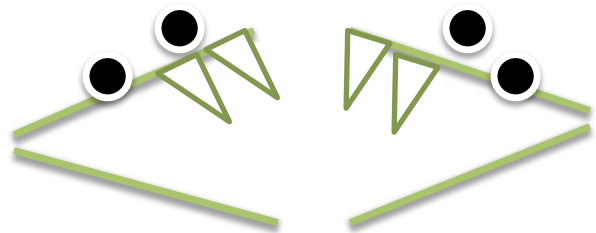
In grades K-2, I have seen many teachers utilize the “alligator method.” I even remember being taught this as a youngster myself. When thinking of the less than symbol ($<$) and greater than symbol ($>$), imagine that each symbol has teeth, like an alligator. Then, the symbol will “turn” and “eat” the bigger or greater than number since alligators are so hungry.

This method puts all the focus on the greater number as if it is more important.

Ok, teacher-friends, now I know that may “work” as far as which symbol to face the bigger number, and on paper, it looks like the students are getting the answers correct. But, let me ask you:

- **Are they really understanding the concept of comparison of numbers?**
- **Are they reading algebraic equations (number sentences) correctly?**
- **Can your students read the sentence $54 < 68$ from left to right, for example?**

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Alligators live in swamps.

(continued)

I start out my unit by grabbing a book, opening to the back and reading backward from the last word on the last page. I will read about 2-3 sentences. Of course I get quizzical looks, giggles, and some outright pleas to stop!

"What are you doing Mrs. White???"

"I'm reading this book to you, of course."

After a short, and super funny discussion, I relate what just happened to math. If we call " $14 + 22 = 36$ " an addition sentence, " $30 - 19 = 11$ " a subtraction sentence, and " $34 < 51$ " a comparison sentence... then we shouldn't read our SENTENCES backwards! I explain that we have punctuation marks, or symbols in the English language like the period, comma, question mark, and exclamation point that tell us what to do with our words and our voice. Math is also its own special language, with its own special symbols that tell us what to do with NUMBERS so that we can count and solve problems.

You need to know how to read your symbols! So many times, for example, kids will read " $17 < 32$ " as "thirty two is greater than seventeen," and although there is truth to that, the sentence actually reads that "seventeen is less than thirty two."

I have my students put a large dot on the left side of each symbol, so that will draw there focus to the left side.



I want my students to determine the value of the number on the left, then the value of the number on the right. If they are always attending to the greater number first, they may read "backward," and will not really understand how to "say" each of the symbols algebraically in a sentence. Until they become more fluent at it, I also require the students to write both the symbol and the word form.

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Alligators live in swamps.
(continued)

All right, all right, you don't have to throw your alligators out with your swamp water! You can keep using them as a teaching tool, but change it up! Smaller numbers are just as important as bigger numbers. Instead of always chomping for the greater number, maybe when it's a less than equation or model, the alligators can just be "sniffing" around. ■

"You don't have to throw your alligators out with your swamp water! You can keep using them as a teaching tool, but change it up!"

Later, gator!



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Membership Application 2016-2017



Complete application and return to Amy Glass with a check for \$10 made payable to UETCTM. Mail completed application and check to:

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