



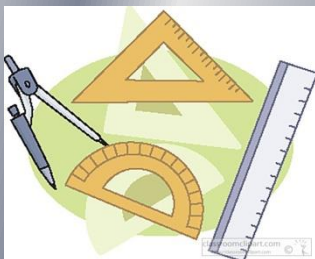
NATM Newsletter

August 2015



Special Interest Articles:

- Blended Learning: Fad or Tool
- Digital Resources for the High School Classroom
- Conference Information



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Nebraska Association of Teachers of Mathematics



President's Address

Colleagues,

Welcome back to another school year! I hope that everyone had a refreshing summer and is re-energized for another year as a math educator. Each summer I always reflect, on how I can continue to grow as an educator and improve my craft. I often find myself brainstorming how I can connect mathematics to the world in which my students live and in what new ways can I integrate technology cannot expect students to push themselves further educationally if I do not expect the same out of myself.

I am very honored to serve at the NATM president for 2015. As stated in our bylaws, the goal of our organization is “to advance the teaching and learning of mathematics in Nebraska, disseminate information for the improvement of the teaching of mathematics, facilitate collaboration with mathematics teachers from across the state, support professional development, and foster leadership.” By being a part of NATM, I have made professional connections across the state that have positively impacted my teaching and benefited my students. Together, as an organization, we will continue our pursuit for excellence in our field.

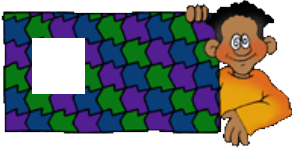
Start your school year off with professional learning by joining us in Kearney on Monday, September 14 for the NATM annual conference. This year’s theme is M3 - Making Math Meaningful. Our keynote speaker is Alex Kajitani, also known as the "The Rappin' Mathematician". Alex is an author and award-winning teacher from California. After meeting Alex in 2013, I knew that I wanted to share Alex’s enthusiasm for education with Nebraska educators. Breakout sessions will include updates on the Nebraska State Standards, NCTM’s Principles to Actions, technology integration, connections between mathematics and other disciplines, student engagement, and effective instructional practices. The conference schedule includes valuable professional development experiences for teachers at all levels along with opportunities to network with mathematics educators from across the state. Visit the NATM website to register (<http://natmonline.clubexpress.com/>).

With the anticipation of entering the classroom, getting to meet a new crop of students, and brainstorming ways to make this a successful school year, August is always an exciting time for teachers. My challenge to you this fall is to set an instructional goal to do something different in your classroom this year. Whether it be using a new technology, integrating more opportunities for students to do authentic problem solving, or increasing the amount of real-world connections in your daily lessons – don’t be afraid to push your instructional skills to help your students achieve more. Nebraska has an outstanding group of mathematics educators supporting our students to become stronger problem-solvers. I consider myself fortunate to part of this exceptional learning community. Thank you for your dedication to your students and to NATM.

Sincerely,

Angela D. Mosier, 2015 NATM President

BUZZ WORD: BLENDED LEARNING



What: Blended learning: engaged learners without constant instruction from a teacher, often with a technology component.

done in any subject and with any medium you want. You can even choose to assign a video clip to watch outside of class and discuss when the next class resumes.

How: Centers, technology, student led discussions, virtual field trips, interactive tablets, laptops. You choose what blended learning will look like. Perhaps you choose a YouTube video to supplement your instruction, or you have a game that works perfectly for learning math facts, it's your choice, your design.

Who: Any and all of your students.

Every student benefits when you are differentiating your instruction. By incorporating various types of blended learning opportunities you are increasing the ability for your students to learn their way. Plus, think of the benefit of having a review video for the student who misses class.

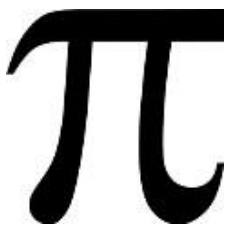
Where: As little or as much space as you choose. Your room is your design if you prefer to have rows of desks great, if you like groups that works too. You decide and make it work for your teaching style and your students. You also have the opportunity for a digital presence in the form of class blogs, class websites, YouTube, online communities, and much more.

Are you interested in more information? Contact your ESU representative and get a closer look at what blended learning can do for your classroom.

When: Whenever, it's up to you! Blended learning can be done with as much or as little time as you choose. It can be

"Blended learning can be done with as much or as little time as you choose."

Middle School Ideas: L to J



I have been an Lto J advocate since I first listened to its innovator, Dr. Lee Jenkins in 2009, my first year with the Nebraska Mathematics Professional Development Series (NMPDS). Since that time, I have attended his workshops a dozen times and each time I have learned something valuable. Lto J is a strategy used by schools and educators to promote continuous improvement in any classroom using preview and review content. My students are responsible for taking 28 non-graded quizzes (7 per quarter) and graphing their results. Students receive various incentives when they reach their Quarter or Semester goal and their All-Time-Best. The benefits I have experienced are increased student motivation, improved student accountability for their own learning, worthwhile classroom discussion, and because each student knows exactly what they are going to learn in a year...no permission to forget. For more information about Lto J, please visit <http://ltoiconsulting.com/> or contact me, jalena.slack@gmail.com.

Revised Math Standards

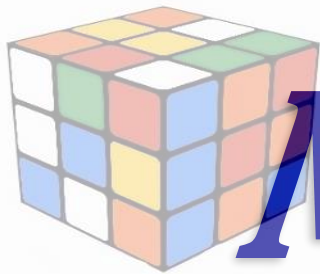
Release of the revised math standards is expected at the NATM fall Conference

The conversation began in November 2013 with postsecondary faculty representing the community colleges, independent colleges and the university, and high school mathematics teachers to discuss what college and career ready mathematics standards might include. Two anchor documents were reviewed and discussed – the current 2009 Nebraska Mathematics Standards and Nebraska Mathematics Articulation: Preschool through Postsecondary ((P-16) which was produced in 2003. Almost a year later following the ELA standards revision it was finally time for the mathematics writing team of over 40 educators from across the state to begin the five year revision cycle. There were multiple large group meetings with a subset of editors working between those sessions while providing regular updates to the State Board of Education. In April 2015 the first K-12 draft was posted along with an electronic survey. The survey was available until the end of May and generated nearly 300 comments. The editing teams looked closely at each of them and made revisions to the first draft. In addition, business partners were involved in several discussions with our writing team. There is now a second draft posted that will be used in the public input meeting on August 4. There are seven locations around the state for public comment and we welcome anyone who wishes to participate. After the public input is considered and final editing complete, we plan to ask the State Board of Education to adopt the revised mathematics standards at their September 3-4 meeting along with the postsecondary institutions approval of the standards being college and career ready. Please view the second draft dated July 10, 2015 on NDE-mathematics homepage: <http://www.education.ne.gov/math/index.html>.

“Please view the updated standards on the NDE-mathematics homepage”

Deb Romanek, Nebraska Department of Education

*Nebraska Association of Teachers of Mathematics
Presents Our Annual Fall Conference*



Making Math Meaningful

**Kearney Holiday Inn Convention Center
Monday, September 14, 2015**

Registration Starts at 7:30am & Conference Begins at 8:30am



Featured Speaker

Alex Kajitani is the 2009 California Teacher of the Year, and a Top-4 Finalist for National Teacher of the Year. He is known around the country as “The Rappin’ Mathematician,” and his CDs and workbooks are being used in classrooms and homes around the world to engage students in math. A highly sought-after speaker, he is also the author of the acclaimed book, *Owning It: Proven Strategies for Success in ALL of Your Roles as a Teacher Today*, recently named “Recommended Reading” by the United States Department of Education. He has been honored at the White House, has a popular TED Talk, and has been featured in many media outlets, including the CBS Evening News with Katie Couric.

Breakout Session Topics Include:

Nebraska’s State Standards Revisions, NCTM’s From Principles to Actions, Technology in the Mathematics Classroom, Vocabulary Strategies in Mathematics, Student Engagement & Motivation, Effective Practices in Teaching Mathematics, High Leverage Instructional Strategies, Mathematical Modeling & Inquiry, Connections between Mathematics & Other Disciplines

Register at www.natmonline.org

Tips and Tricks



TIPS FOR CONNECTING Math & Literacy

1. **WRITING & CRITICAL THINKING**
Have students keep math journals. Provide writing prompts that encourage students to explain their problem solving process.
2. **VOCABULARY**
Start a math word wall in your classroom to encourage the use of mathematics vocabulary and help students learn math symbols.
3. **REAL-WORLD CONNECTIONS**
Encourage problem solving by asking students to write math story problems for their classmates to solve. Bring in newspapers to inspire ideas: sports statistics, planning a budget for a shopping trip, looking at weather patterns, etc.
4. **SPEAKING**
Add "math chats" in your daily lessons to encourage students to discuss mathematics in small groups and as an entire class.
5. **READING**
Create a math library in your classroom. Look for books that have a unique way of sharing mathematics that are engaging for your students.

Authors recommended by our fellow teachers:
Stuart J. Murphy, Jerry Pallotta, Greg Tang

Don't forget to check out the
Sir Cumference Math Adventure Series
by Cindy Neuschwander

Help your students see that mathematics
is all around them by reading
Math Curse by Jon Scieszka



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NCTM News

NCTM News from Marci Ostmeyer

Mark Your Calendars

NCTM Regional Conference
Minneapolis, MN
November 11-13

Six focus strands and nine conference topics allow you to learn the most effective teaching practices within the topics most essential to your teaching!

Registration open at nctm.org

illuminations.nctm.org
has added and updated new
content interactives for
grades preK-12

Mathematics Education Trust (MET) Grants

Funding ranges from \$1,200 to \$24,000 and is available to help math teachers, prospective teachers, and other math educators improve the teaching and learning of mathematics.

For Example...

Future Leader Initial NCTM Annual Meeting Attendance Awards

Grants of up to \$1,200 + meeting registration are provided for travel, subsistence expenses, and substitute teacher costs of NCTM members who are classroom mathematics teachers in grades Pre-K–12 and have never attended an NCTM annual meeting.

Check out www.nctm.org/Grants/ for the complete list and deadlines for this cycle

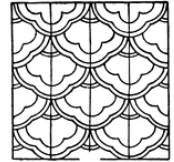
Digital Resources for the High School Classroom

Algebra:

YouCubed

<https://www.youcubed.org/tasks/>

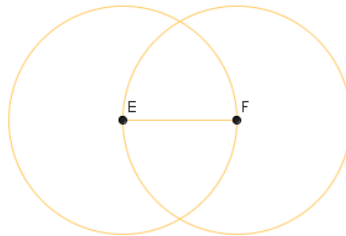
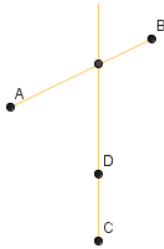
Jo Boaler's site contains many rich tasks sorted by grade level and by the Standards for Mathematical Practice featured in the Common Core State Standards. These "low entry, high ceiling tasks" provide opportunities for effective productive struggle.



Euclid: The Game - Tutorial

Goal:

1. Construct a line segment from A to B.
2. Construct a ray from C to D.
3. Construct a circle with center E and radius EF.
4. Construct a circle with center F and radius EF.
5. Construct a (black) point at the intersection of AB and the ray CD.



Hint: Hold your mouse on a tool to get a brief instruction how the tool works.

Caption describing picture or graphic.

Geometry:

Euclid the Game

<http://euclidthegame.com/Tutorial/>

Euclid the Game uses Geogebra as a basis for introductory compass and straightedge constructions. No downloads are necessary – simply open a web browser. The site is also free.

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Prospective Teacher NCTM Conference Attendance Awards

The Mathematics Education Trust (MET) recently had its June meeting and made an award to several people in your state. We are attaching a very brief possible newsletter release that you might want to use for your affiliate.

The Mathematics Education Trust Board of Trustees recently awarded Hayley Mikelle Anderson, University of Nebraska-Lincoln, and Brenna Rose Wragge,

University of Nebraska-Omaha, the Prospective Teacher NCTM Conference Attendance Awards. These awards, funded by the Julius H. Hlavaty Fund and the National Council of Teachers of Mathematics, are to provide financial assistance to a future teacher of mathematics for attendance at an NCTM conference. The MET Board of Trustees congratulates Ms. Anderson and Ms. Wragge for their successful proposals.

The next deadline for applications for MET Grants is May 4, 2015. Please check the website at www.nctm.org/grants/ for information on all grants, awards and scholarships.

Johnny Lott, Chair
Mathematics Education Trust Board of Trustees
jlott@mso.unt.edu



Digital Resources Continued

101questions SEARCH CREATE TOP 10 PROFILE SIGN OUT

[photos](#) [videos](#) [all time](#) [right now](#)

1.	+		Viva las Colas! <i>by Timon Piccini</i>	81
2.	+		The Ticket Roll <i>by Dan Meyer</i>	81
3.	+		Penny Pyramid <i>by Dan Anderson</i>	81
4.	+		My Daughter's Text Messages <i>by Dan Meyer</i>	79

Questioning Techniques:

101 Questions

Dan Meyer maintains a website featuring images and videos intended for teacher use. All that is needed to create an account is an email address. Start with the “Top 10” list and use this site to develop your ability to ask questions that engage students.

“Start with the “Top 10” list and use this site to develop your ability to ask questions that engage students.”

“Nominations for the elementary level will be open later this fall.”

Congratulations Shelby

CONGRATULATIONS to **Shelby Aaberg** from Scottsbluff High School

Shelby was named the 2013 Presidential Awardee for Excellence in Mathematics Teaching after a very long wait we are pleased that we will be representing our state later during his visit to Washington

D.C. We will be announcing the 2015 state finalists at the secondary level prior to honoring them at the NATM fall conference. Nominations for the elementary level will be open later this fall. For details on the application process, go to www.paemst.org.

Deb Romanek, Nebraska Department of Education

Famous Problem: Goldbach’s Conjecture

Christian Goldbach was a Prussian mathematician noted for his study of law and his correspondence with Leibniz, Euler, and Bernoulli. In 1742, he wrote Euler with the following conjecture:

Every even integer greater than 2 can be expressed as the sum of two primes.

This remains unproven.

Can you at least show that that every odd number greater than 7 can be expressed as the sum of three odd primes?

Good Luck!



“Market Day has been a great way to integrate mathematics and foreign language.”

Multicultural Mathematics

For the last decade, Market Day has been a great way to integrate mathematics and foreign language. Taking junior high students to an open air market environment while teaching some bargaining fundamentals and basic Spanish has been an experience that students remember for a lifetime. With the

retirement of my colleague, new ideas were needed. NEA has a whole page with multicultural mathematics lessons that incorporate the Mayan influence: <http://www.nea.org/tools/lessons/47756.htm> .

BYU also has a site with numerous links:

http://education.byu.edu/diversity/math_science.html.

Please share any ideas you may have to enhance multicultural mathematics.

Call for Ideas

“We want to hear from you. Please share your great ideas.”

Got some ideas, tips, tricks, apps, web sites, etc., you are willing to share with teachers across the state? We would love to share it with the members. Please use the contact information below to submit ideas for future newsletters. We would

especially love elementary ideas, puzzles, activities, and project ideas. Ideas on how you share information or use social media to enhance your teaching and classroom would also be very welcome. We look forward to all of your expertise. **Have a**

great school year!

Thank you all so much for your membership and all you do for mathematics students across the state.

About the Newsletter

The NATM Newsletter, newsletter of the Nebraska Association of Teachers of Mathematics (an affiliate of the National Council of Teachers of Mathematics), is published several times a year.

Address correspondence to Matt Chrisman, Mitchell Public Schools, 1819 19th Avenue, Mitchell, NE 69357. Send a data file (via email to mchrisma@mpstigers.com). Microsoft Word or a linked Google Doc are the preferred formats electronically. Please put **NATM newsletter** in subject and name your file by the scene or article name.

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Watch for Upcoming Events

Remember to check out the website for upcoming events such as the NATM Conference and Pre-Professionals Conference.

For all NATM information check the following:

Website: www.natmonline.org

Facebook: Nebraska Association of Teachers of Mathematics

Twitter: @NATMathematics

Email: natmboard@gmail.com

“Be sure to check for upcoming events.”

NATM Board 2015

Voting Board Members:

President, First Vice-President, Second Vice-President, Past President, Secretary, Treasurer, Membership Chair, Region I, II, & III Representatives

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NATM

*The mission of the
Nebraska Association of
Teachers of
Mathematics is to
enhance the teaching
and learning of
mathematics by
fostering
professionalism,
cultivating leadership
and facilitating
communication among
educators.*

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