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(T a l k i n g L e a f)

South Dakota Council Teachers of Mathematics Newsletter

Summer 2021-2022

Wahpe Woyaka pi

Presidential Ponderings

Greetings, Friends!

It has been a crazy, unprecedented year! But like the true heroes you are, you made it work. Was it ideal? Not even close. Was it a cakewalk? ---- no! However, true to form, South Dakota teachers dug in and, for the love of kids, made it work. THANK YOU!! Thank you for choosing to teach, for loving kids and for showing up when it got harder than hard.

I am happy to say that the Executive Board members of SDCTM and SDSTA are committed to hosting the 2022 SD STEM Ed Conference! It will be awesome to be with my math (and science) family once again. I, as well as several other SDCTM members, was in Pierre last week working with Stephanie Higdon and it was incredibly refreshing to spend some time with some of my "math" people. I want you to have that same opportunity with the 2022 conference. The link to register for the conference is: https://forms.gle/YZ67ZeKK2x3wp45UA.

Jim Matthews will be our banquet speaker and will offer some sessions during the day Friday and Saturday. Jim is a faculty member at Siena College in Loudonville, New York. He has given hundreds of conference presentations and written articles based on ideas for improving the teaching of mathematics and computer science. In addition, Jim has conducted numerous workshops for mathematics educators. David Costello has accepted the invitation to be a Featured Speaker. David is an elementary principal in Prince Edward Island, Canada and is well known for his approach to teaching problem solving to elementary students. He is the author of *Using What Works.* David has been a speaker at numerous regional, national and international conferences. He has been a district and provincial curriculum consultant and professional learning math lead for Prince Edward Island, Canada.

Please consider presenting at the 2022 SD STEM Ed conference. All of you do things in your classes that others would love to learn about. Many of you discovered new and exciting things this past year in your classrooms. You may have, quite by accident, found something that worked extremely well and will impact the way you "do things" from now on. If you "found" such a thing, please share. The link for speaker proposals is: http://speaker.sdsta.org/.

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O†Gorman High School
SDCTM President
SDCTM/SDSTA JPDC Treasurer & Registrar

Calendar Notes:

- *Speaker Proposals 2022 SD STEM Ed Conference due October 31st*
- *SD STEM Ed Conference February 3-5, 2022*
- *2022 Daktronics Outstanding Mathematics Teacher Award application due December 31st, 2021*

Musings from Dan

I trust you have all been enjoying your summer. It is hard to believe that we will be back at school in less than a month by the time you read this. I hope you all had some time to recharge your batteries, but also had a chance to do something mathematical to expand your horizons. This past week I had the opportunity to attend a training workshop on Math Circles provided by the South Dakota Department of Education in Pierre. Stephanie Higdon put a lot of effort into this program and it will be great for the state. The goal is to now provide a similar training to math educators all across the state at five different locations this upcoming school year. A few folks that participated in this workshop will now help present in upcoming workshops. The workshops will likely be two-day workshops scheduled at four different times throughout the year. The workshops will be for anyone involved in pre-K through college education. We hope to also have paraprofessionals and administrators attend as well. Stephanie is still working on the details but please watch for flyers coming out in the next 2-3 months.

Another valuable workshop put on by SDCTM via the summer symposium was held on July 29. This will likely be past by the time you read this, but my point is that the state provides some excellent opportunities in the summer for us as math educators. In February 3-5 there is the annual SD STEM Ed conference in Huron. We would love to see you at the conference and help build our community of math educators across the state. If you have other ideas on how we can better reach out or serve you better, we would be happy to hear from you. Please feel free to contact me via my contact info below.

In closing, I do wish you all a great rest of the summer and a successful start to the new year in August. I truly hope to see you in the near future at a workshop or our STEM Ed conference in Huron.

Sincerely,

Dan Van Peursem

President Elect-SDCTM
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"...the state provides some excellent opportunities in the summer for us math educators."

Higher Ed Viewpoint

As the summer starts to wind down and I begin to plan for a return to a more normal school year, I wonder what that means. No masks so that I can see my students' faces? No hybrid classes, so all my students are in class with me every day? After a year of separation, isolation, and frustration, how do I build my class into a community of learners? How do I create an environment where all students are excited to learn from me and each other? Here are a few techniques I have used in the past (pre-COVID) and plan to use this year to develop relationships with my students and to encourage my students to begin relationships with each other. According to the NCTM publication "Catalyzing Change in High School Mathematics," "The research suggests that equitable mathematics teaching practices are inclusive when they acknowledge that students bring knowledge and resources from their communities and make community-based knowledge and resources an integral part of mathematics teaching." (NCTM, p.36)

"…develop relationships with my students and to encourage my students to begin relationships with each other.."

Here are three community-building activities that I have used in my classes:

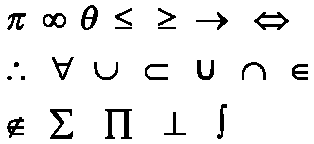
1. Share a photo from your phone.

Give your students a couple of minutes to find a photo on their phone that they would like to share with the rest of the class. Then they have 5 minutes to walk around and share their photo with as many students as they can. They can use a personal photo or any image on their phone that says something about themselves.

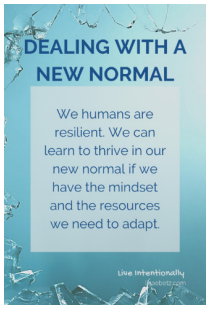
2. Emoji

I use this activity as both an introductory activity and as a check-in. First, students choose an emoji that describes something about themselves and how they feel about beginning this math class or just about themselves in general. If I use it as a check-in during the semester, they pick one that describes how they feel about the topic we just covered in class or the unit we are covering. You can use a list of emoji's, or again, ask them to find one on their phone. Then, you can have them share with the entire class or with a small group.

3. Mathematical Symbol



I hand out a 3x5 or a 5x8 notecard for this activity and ask the students to choose a mathematical symbol that describes something about themselves. They write the symbol on the card and then share what their symbol is and what it means to them. I often give them an example for this one. I might choose the summation symbol and say that I am a sum of many things in my life, a mother, a teacher, a mathematician, a reader, a camper, a cat, and a dog lover. You can give them some symbols to choose from or just let them pick their own.



Good luck with getting back to "normal" this fall. I know that we all will be figuring out what that looks like, and hopefully, we can use some of the things we learned in this past year to help create a "new normal."

Christine Larson
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Presidential Award for Excellence in Mathematics and Science Teaching

At this time, we are awaiting the announcement for both the 2020 and 2021 Awardees. Our state-level mathematics finalists featured in an earlier newsletter for 2020 were Darcy Vincent and Merideth Wilkes. Our state-level mathematics finalists for 2021 are Brittany Green, Mark Kreie, and Amy Schander.

Presidential Award for Excellence in Mathematics and Science Teaching
2021 South Dakota State-Level Finalists (mathematics & science)

Mathematics Finalists' Biographies

Brittany Green, a mathematics teacher from Brandon, SD has been teaching for 11 years. She currently teaches Algebra 1 and Algebra 2 at Brandon Valley High School. Brittany graduated from South Dakota State University with a Bachelor of Science degree in Mathematics with a Specialization in Education in 2009.

Mark Kreie, a mathematics teacher at Brookings High School in Brookings, SD, has been teaching for 19 years. He currently teaches Geometry and Advance Algebra 2. Mark graduated from the University of Minnesota – Morris with a Bachelor's degree in Mathematics in 2002. Since then, he has earned his Master's degree in Curriculum and Instruction from Black Hills State University. Outside of his classroom, Mark has presented sessions at the NCTM Regional, SD STEM Ed, TIE, and DSU STEAM conferences. He has hosted a Desmos camp for teachers, served as a virtual math coach, blueprint writer, and South Dakota Counts instructor for the SD DOE, is serving on NCTM's Classroom Resources Committee, and has been active as a Desmos Fellow. Mark is a SDCTM member and serves on its executive board as the Vice President.

Amy Schander, a mathematics teacher from Gayville-Volin, has been teaching for 20 years. She currently teaches Trigonometry, Physics, Geometry, Algebra II, and Consumer Math in person and Trigonometry, Geometry, and Algebra I virtually at Gayville-Volin High School. Amy graduated from the University of South Dakota with a Bachelor's degree in Biology and Psychology in 1997. She then pursued an Associate of Science degree as a Physical Therapy Assistant from Northeast Community College in 1999. In 2001 she earned a Master of Arts degree in Secondary Education from the University of South Dakota. Amy has presented sessions at the SD STEM Ed conference, served as a virtual math coach, a table Lead for the Geometry State Standards writing workgroup, a contributor and editor for Goalbook, a lesson and assessment developer and reviewer for APass Education Group, and is now serving as a member on the SD DOE Math Advisory Team. Amy is a SDCTM member and serves on its executive board as the Secretary.

"State-Level Finalists are nominated because someone thought of them as teachers who exhibit a passion for the subject they teach..."

PAEMST *continued*

Science Finalists' Biographies

Michelle Bartels, a science teacher from Hamlin Middle School, has been teaching for 20 years. She teaches 6th grade earth science, 8th grade physical science, and current events. Michelle earned her bachelor's degree in teacher education from Mount Marty College in 2000 and her master's in curriculum and instruction from Black Hills State University in 2011. Since then she has also completed the K-12 math and science specialist endorsements from BHSU. For several years Michelle has been an active member of the SD Science Teaching Association, currently serving on the board as President and newsletter co-editor for the organization. She is a National Geographic Certified Educator and is an EdReports science content team member.

Spencer Cody, a science teacher from Edmunds Central School District, has been teaching 15 years. He currently teaches 7th grade life science, 8th grade physical science, 9th grade conceptual chemistry/physics, 10th grade biology, 11th grade chemistry, and 11-12th grade zoology/anatomy and physiology. Spencer received his bachelor's in middle and secondary biology education from Concordia College in 2005, and his master's in chemistry education from South Dakota State University in 2010. Spencer has written and received many grants to support science education in his district and for teachers around South Dakota. He has a passion for participating in science research opportunities including Teacher at Sea journeys, as well as enhancing science curriculum and testing at the state and national levels. Spencer has also presented at the South Dakota STEM Ed Conference for many years.

Kristen Gonsoir, a science teacher from Groton Area High School, has taught 28 years. She currently teaches 10-12th grade general chemistry, 11-12th grade organic chemistry, and 12th grade physics. Kristen earned her bachelor's in chemistry and education in 1992, and her masters in teaching in learning in 2015, both from Northern State University. In 2019 she was a Japan-U.S. Fulbright program teacher. The program focused on utilizing technology to promote global citizenship with students. At the state level, Kristen has been involved with the DOE Mentor Teacher program and Science Standards Translations Team. She has received multiple awards while serving as her district's debate coach.

Presidential Award for Excellence in Mathematics and Science Teaching Overview

The Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST) is the highest recognition that a kindergarten through 12th grade mathematics or science teacher may receive for outstanding teaching in the United States. Since 1983, more than 4,000 teachers have been recognized for their contributions to mathematics and science education. Awardees serve as models for their colleagues, inspiration to their communities, and leaders in the improvement of mathematics and science education.

State-Level Finalists automatically become candidates for the National Presidential Award. Two teachers from each state may be selected as the state's Presidential Awardees and will be notified officially by the White House. This will take place after a national committee reporting to the National Science Foundation makes its selection from the state-level finalists submitted by each state.

Presidential awardees receive a citation signed by the President of the United States, a trip to Washington DC to attend a series of recognition events and professional development opportunities, and a $10,000 award from the National Science Foundation.

PAEMST *continued*

State-Level Finalists are nominated because someone thought of them as teachers who exhibit a passion for the subject they teach; who approach their work with creativity and imagination; and who strive daily to improve individual teaching practices.

Anyone--principals, teachers, parents, students, or members of the general public--may nominate a teacher by completing the nomination form available on the PAEMST website. For more information, please visit www.paemst.org.

Why else would a nominee want to complete the application process?

Three CEU's from the South Dakota Department of Education can also be earned toward certificate renewal by completing the application process. To be eligible, a PAEMST candidate must complete all components of the application process and submit a scorable application that can be sent on to the state selection committee. All applicants submitting a scorable application will earn credit, not just the state finalists whose materials will be sent on to a national selection panel.

Now that you know more, Do YOU:

Teach mathematics in grades K-6 (the next cycle will be for teachers in grades k-6)?

Have a Bachelor's degree from an accredited institution?

Have at least 5 years of full-time employment prior to the 2021-2022 school year?

Teach students full-time at least 50% of a school's allotted instructional time?

Have a passion for the subject you teach, approach your work with creativity and imagination, and work to improve your individual teaching practice daily?

If you have answered *YES to the above questions, consider applying for the 2021-2022 PAEMST award this FALL! The nomination window will open this August/September. For more program information, visit www.PAEMST.org*

If you have any questions, please contact:

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Mark's Thoughts

"To do a keyword search, navigate to the search bar and dive in!"

Finding Math Resources on Twitter

As you begin to plan and prepare for the upcoming year, I invite you to utilize Twitter to locate resources that can be used in your classroom. There are hundreds of math teachers who share resources and links and 99% of what they share is free!

Two ways to find resources on Twitt*er are 1) follow people who tweet / retweet resources and links, and 2) perform a search for keywords aligned to what course or topic you are looking for.*

Here are a few recommendations of who to follow:

Name	Twitter Handle	Brief Bio
NCTM	@nctm	Get info on upcoming NCTM events
NCTM Classroom Resources	@NCTMResources	This feed promotes resources found on the NCTM website
Andrew Stadel	@mr_stadel	Founder of estimation180.com, Andrew tweets about a lot of cool activities for 6-12
Fawn Nguyen	@fawnpnguyen	Leader of visualpatterns.org; K-12
Robert Kaplinsky	@robertkaplinsky	Co-founder of Open Middle; K-12
Sarah Carter	@mathequalslove	9-12 math teacher; often shares resources like foldable notebooks
Illustrative Math	@IllustrateMath	Official feed of IM curriculum (free for all… K-5, 6-8, 9-12)
Sara VanDerWerf	@saravdwerf	Spoke at SD STEM ED back in 2019; often tweets about her blog (great resources)
Dan Meyer	@ddmeyer	Check out his TED Talk "Math Class Needs a Mathover" from 2011; works @Desmos
Desmos	@desmos	Great for information about the new Desmos curriculum
GeoGebra	@geogebra	Great for information about GeoGebra activities & updates
Annie Fetter	@MFAnnie	Known as the "Notice & Wonder Woman"
Brian Mark	@yummymath	Yummy Math is a site that has a number of real-world type problems
SDCTM	@SouthDakotaCTM	The official feed of this organization!

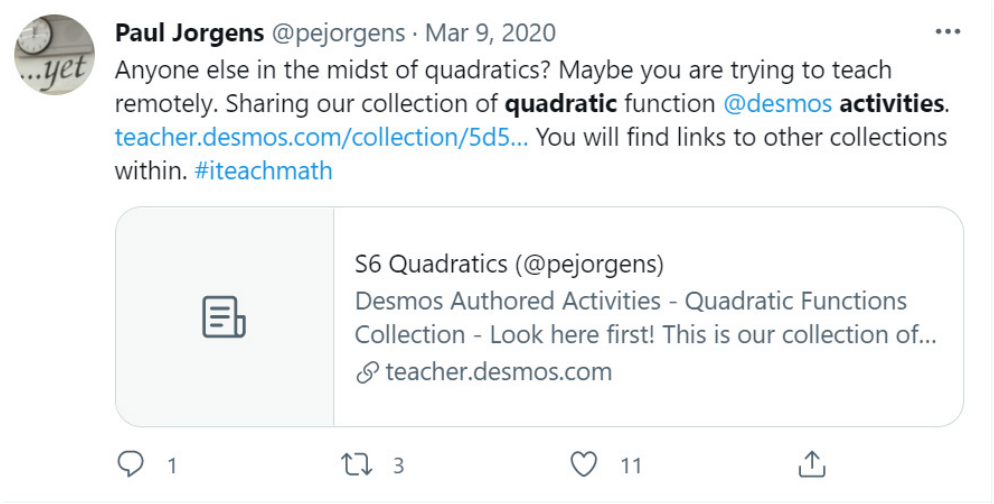
To do a keyword search, navigate to the search bar and dive in!

See an example of my own search on the next page!

Mark's Thoughts *continued*

For example, just now I was interested in finding an activity focused on quadratic functions for my algebra 2 class. I searched "quadratic activities" and found the following:

I notice the top hit looks like an activity, but I don't see any link to follow. I move on…

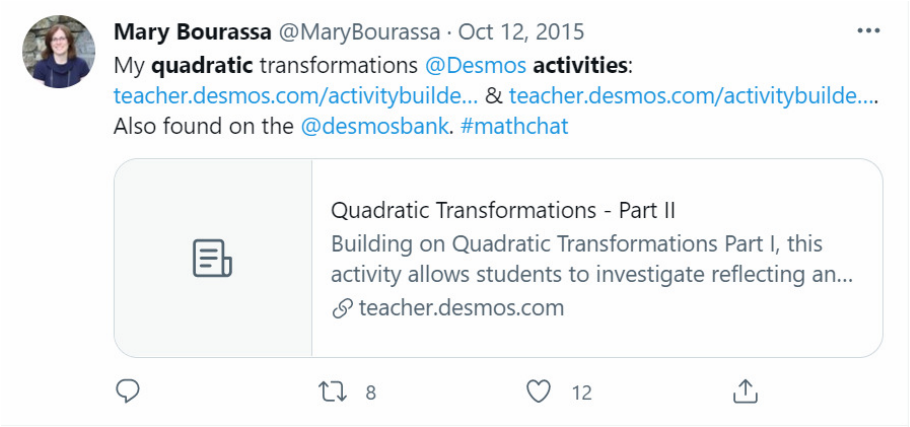


The next hit looks promising (if I were looking for a Desmos activity), but I was thinking of something less digital for now. I keep scrolling….

Another Desmos activity! Maybe later; one more swipe down…

Mark's Thoughts *continued*

Oooooh… this looks interesting! A new blog post from Sarah Carter from earlier this month. It looks like students are doing some hands-on learning and integrating statistics into algebra 2. I notice there is a link to the blog post. I decide to investigate…



I follow think like to the blog post (https://mathequalslove.net/speedy-squares-activity-for-quadratic-regression/) and like what I see. I'll let you decide if it's worth working into your classroom.

In case you were wondering, that search and rabbit hole would have taken me no more than 2 minutes to execute. I might have spent about 3-4 minutes skimming that blog post and deciding whether or not I liked the activity enough to use in my class. I will often browse through Twitter any time I'm teaching a new topic. I find the few minutes looking is worth the effort.

To read more about how Twitter became my Personal Learning Network, check out this blog post from three years ago: https://mathtechsdsu.blogspot.com/2018/03/how-twitter-became-my-pln.html

Mark Kreie
SDCTM Vice President
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A Word from Stephanie

Greetings,

In the summer newsletter I mentioned how I was looking forward to the summer season to fill my cup. I can say, with confidence, that my cup is now overflowing! I had multiple opportunities to visit with family that I had not seen in well over a year, to work with and learn from educators in a variety of workshops, as well as build lasting professional connections and friendships. I don't want to rehash too much of what I shared in the summer newsletter but will give a little recap of the summer workshops, and also some upcoming math programs and projects to watch for this fall.

This summer, cohort 4 of the SD Math/SD Science Leadership program met for last two retreats in Chamberlain. SD DOE and SURF partner in the facilitation of this program. This cohort got a little off to a late start, with the hope that we may have been able to meet in person for all four retreats. The first two retreats had to be held virtually, however, participants made the best of the situation and engaged in wonderful conversation. Fortunately, the final two retreats could be held face to face in June and July. The participants in this cohort demonstrate both resilience and passion! Cohort 5 of SD Math/SD Science leadership will start this fall.

This summer, six amazing teachers and I hosted the first face to face South Dakota Foundational Math course. First, I have to give a huge shout out to the teachers that helped me plan and facilitate this course. Heather Beck, Erica Boomsma, Julie Bruckner, Becky Kitts, Jodi Neugebauer and Dina Vanderwilt are amazing, and this workshop could not have taken place without them. This was a two-day workshop focused on the development of student understanding of number sense and number relationships. Teachers engaged in rich conversations, played math games to develop their learning and had amazing energy. One of the outcomes from this course are the Kindergarten-5th grade Formative Assessment tools. These tools were developed by teachers, for teachers to glean students' understanding of number sense and number relationships. The formative assessment tools can be found on the SD DOE Mathematics webpage. I also hosted the SD Best Practices in Teaching Mathematics workshop. This was a one-day workshop, again filled with engaged teachers and high levels of learning around developing students mathematics mindset through asset based language, intentional planning of the grade level standards, and best practices to teach these standards, and using formative tools to guide instruction and support students' learning of the standards. I look forward to facilitating both workshops again next summer and anticipate having both for two days!

I also hosted the first SD Math Circles Facilitator workshop this summer. Again, this was an amazing group of math leaders/educators from across our state who met to work with me to develop a new SD DOE program, South Dakota Regional Math Circles. These leaders engaged in challenging math tasks, discussions around building our students' identity as mathematicians, and equitable opportunities for all students to learn mathematics. This group also developed a vision and core beliefs for the upcoming SD Regional Math Circles program to start this fall. We are excited to move forward with this program.

"....encourage colleagues to sign up for the Listserv, at the K-12 Data Center Mailing Listing site..."

A Word from Stephanie *continued*

One other exciting project I anticipate working on this fall, is the development of a Data Science math elective course. As you know, students are required to take Algebra 1, and two additional mathematics courses. I anticipate the Data Science course to provide students with a rigorous math elective that would be taken following the completion of Algebra 1 and Geometry. I will share more information regarding this course and the SD Regional Math Circles program through the DOE Math Listserv. As always, encourage colleagues to sign up for the Listserv, at the K-12 Data Center Mailing Listing site: https://www.k12.sd.us/MailingLists.

I hope you all had a wonderful summer and were able to fill your cup!

Stephanie Higdon
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NCTM Representative Tips

How to keep Group Work a group activity

When I have my students get into groups to practice their math skills together, I find that some of my students don't always participate in the group. Rather, they wait until someone in the group has an answer and then they copy. I have found an activity that is a way to reframe the assignment that has reduced the 'wait and copy'.

Get Ready

⇒Get a list of questions.
⇒Put each question on its own recipe card.

⇒Put them into groups of 3 or 4 and label each group A, B, C…….

⇒Add the answer of each question together to find the sum of the group of questions.

Get Set

⇒Get the students in groups of 3 or 4 (match your question group).
⇒Hand out a group of problems to each group students.

GO!!!

⇒The student will each answer one of the questions in the group.
⇒Once the students have an answer to their part of the question, someone in the group will add the 3 (or 4) answers together. They can then check with you.
⇒If the sum of the answers is correct, they can move on with a new group of questions. If not, they need to peer review each others work and find the mistake.

Susan Gilkerson
NCTM Representative
Susan.Gilkerson@k12.sd.us

"I have found an activity that is a way to reframe the assignment that has reduced the 'wait and copy'."

9-12 Spotlight

Project Based Learning in the Math Classroom

How can I motivate my students to engage in the math classroom? Lots of different ways. This year our district is focusing on improving student engagement and strengthening 21st century skills using project-based learning.

What is Project-Based Learning?

According to the Buck's Institute for Education PBL Works, project-based learning is a teaching method in which students learn by actively engaging in real-world and personally meaningful projects. Unlike many traditional projects, the learning is taking place in the project rather than the project being a demonstration of the learning.

Sounds great! How do I do it?

Now, all I have to do is design a project that is real-world, personally meaningful to my students, and that drives the students to master the curriculum standards of the course. The task seems overwhelming, but the payoffs could be big.

Re-crafting an Old Project

Most of us have incorporated projects into our courses throughout the years. Assuming the project is real-world and engaging to students, perhaps we can re-craft it into an PBL experience. To do that, we will introduce the project at the beginning of the unit and use the project to drive the instruction. It is the idea of creating a need for the content in the learner's mind. This will be my approach for my first attempt.

The Old Project: Real-world Applications of Sinusoidal Curves

In precalculus or trigonometry, students learn about sinusoidal curves. It seems like a rather abstract topic, but it has some interesting applications. For example, all South Dakota residents love the long summer days and dread those early winter nights. The hours of daylight vary sinusoidally throughout the year. In this project, I ask students to gather data on the hours of daylight, fit a sinusoidal function to that data, and then use the function to make predictions about hours of daylight on any given day. In the past, I have assigned this project at the end of our unit on sinusoidal transformations.

The Re-craft

To increase the impact of this project and make it a true PBL experience, I need to make some improvements.

- This project is inherently related to the real-world, but it may not be personally meaningful to students. To improve that, I can let the students make some choices. For example, students could select a location of interest in the world. Maybe Tahiti hours of daylight are more interesting than Rapid City. Students could also select their day of interest. Maybe they want to predict the hours of daylight on their birthday or their girlfriend's birthday or the graduation day.
- To drive the learning, I will introduce this project at the beginning of the unit. When I introduce the project, students will not have the skills to complete it. As we go through the content, students will see that their new skills allow them to approach their projects.

"...the closer the project gets to solving real problems, the more motivating and valuable it will become."

9-12 Spotlight *continued*

The End Game

I will try this recrafted project this year as my first PBL attempt, but I do not expect this to be my finished project. Although this project is related to the real-world and tries to tap into the students' personal interests, it is still rather contrived. I hope that after several years of improvement, I will have a more meaningful task for students. Can we find a way to solve a real problem with our math? Can we reduce world hunger or launch a rocket into space? Maybe not, but the closer the project gets to solving real problems, the more motivating and valuable it will become.

Jennifer Haar
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Elementary Highlights

Summer Greetings!

It has been some time since I have written an article. I'm Lindsey Tellinghuisen. I have been teaching 13 years – 3 years in Montrose, 10 years in Willow Lake, all of those in 4th grade. When I started teaching, I was very much an I do, We do, You do math teacher. It was how I was taught in elementary school. Then, I took SD Counts, learned about CGI, and felt like I really missed out as an elementary student myself, not being taught CGI.

I was working on a science course this past year, and read a great line from the Ambitious Science Teaching book. "Learning is not a process of replacing your ideas with something a teacher tells you, or something you read in book or experience in a lab. Learning is a process of actively reconstructing and reorganizing what you know."
The same idea applies to math. We need to foster learning in the classroom so students have ownership of their learning. This is not easy, but anticipating student ideas and responses is a great start.

"We need to foster learning in the classroom so students have ownership of their learning. "

So with that, I leave you my summer reading list. I hope you have all been able to recharge this summer. Look for activities and ideas in future newsletters.

1. **Ambitious Science Teaching -**
Easily crosses over into other curriculum areas.

2. **5 Practices For Orchestrating Productive Mathematics Discussions**
After reading Ambitious Science Teaching, I wanted to re-visit this book.

3. **Big Summer** – Jennifer Weiner
I love an easy read in the summer.

4. **Firekeepers Daughter –** Angeline Boulley
Fantastic young adult novel. Above my 4th graders, but worth reading.

I hope you are able to find something that brings you joy before summer's end.

Lindsey Tellinghuisen
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Teachable Moments

Family Math: **Tens Go Fish**

2-4 players
One deck of cards (remove all face cards and jokers)

Rules:

1. Shuffle and deal each player five cards. The remaining cards are stacked, face down, as the "Go Fish" pile.
2. Each player looks for pairs from their cards with the sum of 10. They place pairs in front of them on the table and draw new cards to replace them.
3. Once all players have finished making 10s, play begins.
4. Players alternate turns asking each other for a card that will make 10 with a card already in their own hands. For example, if I hold a 5, 3, 2, 4, 9, I might ask for a 5 so I can "make 10" and place the pair on the table.
5. If a player gets the card asked for, they put the pair down on the table and pick a new card from the deck. If they do not get the card the player must "Go Fish" and pick a new card from the deck.
6. Once a player has made a 10, or gone fishing, their turn is over, even if they are able to make 10 with the new card.
7. If a player runs out of cards, he picks two new cards.
8. The game is over when there are no more cards, or no more pairs can be made.

K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number.

Cindy Kroon
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Do you have a lesson you'd like to share? Submit lessons for consideration at sdctmnewsletter@gmail.com.

SD STEM Ed

SD STEM Ed Conference

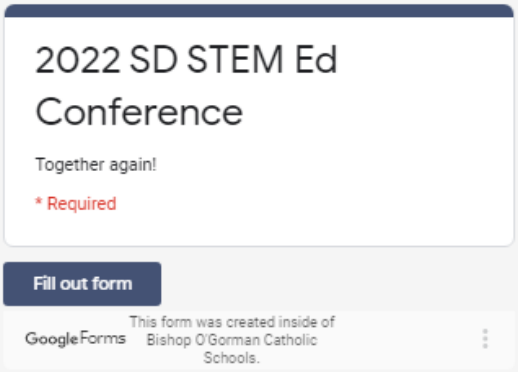
TOGETHER AGAIN!!

February 3, 4, & 5, 2022

JOIN EDUCATORS FROM AROUND THE STATE TO COLLABORATE AND LEARN ABOUT SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS!

REGISTRATION:

- Online advance registration is OPEN.
  - Payment can be made with PayPal, credit card, or by mailing a check with a copy of the invoice.
- Early bird registration (with payment) ends December 15th
- Pre-registration (with payment) ends January 24th.
- ***Banquet Tickets:*** *A limited number of banquet tickets ($25) will be available. There is no guarantee that banquet tickets will be available with on-site registrations.*



Register Here:

http://www.sdctm.org/

2022 Daktronics Outstanding Mathematics Teacher Award

Daktronics, in conjunction with the South Dakota Council of Teachers of Mathematics, is pleased to sponsor the Daktronics Outstanding Mathematics Teacher Award in the state of South Dakota. The recipient of this award receives a plaque and a $1000 cash award to support the award winner's efforts to teach mathematics with equipment or perhaps help to attend a conference or workshop. Middle school and high school teachers, who spend at least 50 percent of their schedule teaching mathematics, are eligible for this award. Application information is available at http://www.sdctm.org/

AWARD SUBMISSION REQUIREMENTS

1.) A maximum two page, 12 font resume, which includes the following:
   a) Personal information, including name, telephone numbers, email, addresses, etc.
   b) Beginning with the most recent, list colleges and universities attended including post-graduate studies. Indicate degrees earned and dates of attendance.
   c) Beginning with the most recent, list teaching employment history indicating time period, grade level and subject area.
   d) Beginning with the most recent, list professional association memberships including information regarding offices held and other relevant activities.
   e) Beginning with the most recent, list staff development leadership activities or other professional activities.
   f) Beginning with the most recent, list awards and other recognition of your teaching.

2.) A maximum two page, 12 font, double spaced, personal essay that includes but is not limited to the following topics: 1.) Describe how you have inspired students in your mathematics class. 2.) Describe innovative teaching techniques involved in your classes 3.) Describe what types of technology are used in your class. 4.) Describe any professional development, as it pertains to mathematics, you have been involved in. 5.) Describe how you have helped students attend classes/workshops/contests/quiz bowls that pertain to mathematics or engineering or how you have helped students incorporate mathematics outside the classroom. (For example, MathCounts, math club, etc.)

3.) Provide 4 letters of recommendation one each from an administrator, parent, colleague, and student or former student. Recommendations must be dated and contain contact information for the writer. They are limited to one page, double spaced, one inch margins, and must be in 12 font. It is important that the information be as detailed as possible to adequately evaluate each application/nomination.

4.) The completed resume and recommendations need to be included in one file in either a word or PDF file in the order they are outlined above and emailed to Paul Kuhlman at paul.kuhlman@k12.sd.us.

The packet must be received by **December 1, 2021**

5.) The recipient for the 2022 Daktronics Outstanding Mathematics Teacher Award will be announced at the **2022 SD STEM Ed Conference in Huron SD (hosted by SDCTM and SDSTA).**

6.) Completed applications will be kept on file for 3 years from the date of original submission. After 3 years, applicants must complete and submit a new application to be considered.

SDCTM
South Dakota Council of Teachers of Mathematics

Special COVID Relief
SDCTM Membership will be FREE for the duration of 2021

All you need to do is sign up!

SDCTM Membership Application:
http://www.sdctm.org/

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