



COLUMBUS STATE  
UNIVERSITY

# NOTES *to* NERDS

*The official newsletter of the Math Collaborative*



*Invitation to Engaging Professional Learning. Register Now!*

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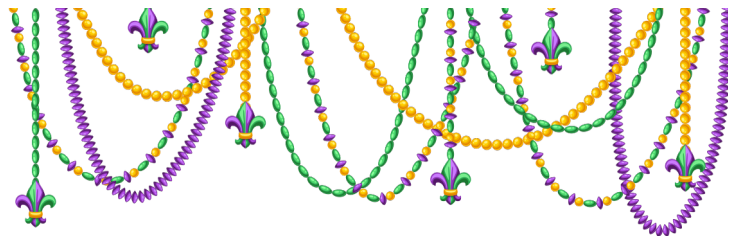
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**THE MATH COLLABORATIVE MISSION:**

The CRMC's mission is to improve math education for all students in our area by developing teacher leaders through deepening their content knowledge, developing best practices, and using available resources to improve student outcomes and experiences.

**TO DO THIS, WE MUST:**

Provide quality teacher growth experiences through continuous collaboration - in and out of the classrooms - with a focus on teachers' needs in support of student growth.



# DIRECTOR'S NOTES

BY PETER ANDERSON, CRMC DIRECTOR

## Slow Down

This past Thursday, I was delivering a professional development session to a group of high school teachers. As it just so happened, I left a folder of materials at the office. The PowerPoint would not pull up on the Smart screen, and I was running behind schedule.

Bless the teachers; they were patient with me. But I realized after about 7 or 8 minutes that I was rushing through the presentation. It was at that point I realized something fundamental...

As I reflect on the past week, key moments resonate with me:

Our resource teacher, Karen, started the conversation with this:

I was talking to an administrator recently who was bemoaning the current math test scores. I pointed out that, OF COURSE, the test scores are low. - These CHILDREN had significant interruptions in their education in 1st, 2nd, and 3rd grade that continued to directly impact their readiness for their current grade level. In Math specifically, most of these students did not receive the adequate foundation of additive and multiplicative reasoning because of those disruptions.



These are HUGE in setting the stage for what YOU teach in 5th grade.

Ok - so, test scores will rise in the upcoming years simply because the students you get will lack fewer foundational skills. NOT TO forget or discount teachers' dedication, ingenuity, efficacy, and willingness to grow daily! Your dedicated teachers are working desperately to meet the diverse student needs I have witnessed in each class. To the administrator's credit, she looked me squarely in the eye, saying, "I had never thought of it that way."

continued...

As we discussed the administrator's response and how we could best support the teachers to help the students truly, Karen ended: ***Educators must remember that humans are not test scores. We Teachers are human, too!*** We need time and space to work on the essential things.

An e-mail from a parent spoke to my heart:

I'm the mother of an elementary student who is very gifted, but I feel my child has never gotten caught up following the pandemic. Now, my child is starting to dislike math. ... She seems to understand the concepts during practice, but the school my student attends doesn't seem interested in remedial help, so I'm trying to understand our options.



Her story is the other side of the coin to what the administrator was coming to terms with. There is a genuine need to focus on building student understanding and less of an emphasis on the immediate test results or pacing guide. As educators, these stories resonate deeply with us. They represent the forces that we try to balance every day. We certainly have a responsibility to teach mathematics.

First and foremost - we teach people. We are devoted to raising them to a higher standard. Ultimately the sustainable growth will come from building on mathematical fluency through understanding.

Now, back to the high school professional development session:

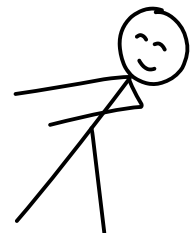
At the Collaborative, we have a few mantras about professional development (and learning mathematics) - Less is more; and go slow to go fast.

I *slowed* the presentation and focused on the teachers and their direct needs. We concentrated on one small piece of content they were teaching. And as we got a handle on that, we made connections to our students' past learning (or lack thereof) and how we could move them forward. WE DID NOT COVER ALL THE MATERIAL I had planned. However, there was a sense that the teachers left with the tools they needed (for now). Maybe they will allow me to continue the journey and our development as professionals who focus on the essential things.

Happy Maths,

Pete

Q: What do Math and Mardi Gras have in common?  
See page 6 for the answer!



# UPCOMING PROFESSIONAL LEARNING

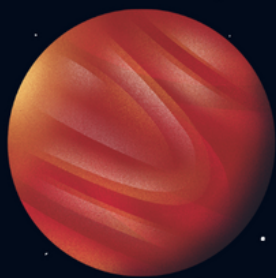
Grades  
6-7

The Math Collaborative  
presents

## SPACE: THE FINAL FRONTIER.

For 6th and 7th grade Math Teachers

AN EXPLORATION OF AREA, VOLUME, AND THE  
SEARCH FOR RELEVANT CONNECTIONS IN GEOMETRY.



Tuesday 30 January 2024 | Doors Open : 08:30 AM



UNITS 4 AND 6 FROM THE GA MATH CURRICULUM  
EXPLORE THE LEARNING PLANS AND LEVERAGE  
RICH TASKS TO ENGAGE YOUR STUDENTS

LEARN HOW TO MAKE CONTENT CONNECTIONS TO PREVIOUS CONCEPTS  
TO HELP STUDENTS ESTABLISH A DEEPER UNDERSTANDING  
EXPLORE LEARNING PLANS



[www.columbusstate.edu/CRMC](http://www.columbusstate.edu/CRMC)

[Register today by clicking here](#)  
or scan the QR code:





# UPCOMING PROFESSIONAL LEARNING

Grades  
3-5



From Calculators to Thinkers:  
Meeting the Needs of the 21st Century Learner  
by Problem Solving Through Math Standards  
for mathematics teachers of Grades 3-5

## Problem Solving with Fractions & Decimals

### Explore

Teachers will receive just-in-time content ideas for teaching problem solving with fractions and decimals.

You will experience research-based practical approaches to guide students' understanding through discovery, modeling, and the facilitation of mathematical connections.

### January 24, 2024

8:30 AM to 3:00 PM  
Frank Brown Hall, Classroom 1010

### Contact Us

706.565.1475

<https://www.columbusstate.edu/crmc/events.php>

Teacher Needs Survey



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REGISTER  
NOW



# COOL TEACHER STUFF

CONTRIBUTED BY PETER ANDERSON, CRMC DIRECTOR

## WE <3 MATH TEACHERS!

We know that Valentine's Day is nowhere near your heart, which is precisely why we are giving your head an early start!

We are sending this little resource.  
So, you can get it mathematically right, of course.

High School folks you are going to love this stuff!  
You will find that the math is not too tough.

Middle School you will find this a bit cool!

Elementary Peeps, there are things here you want to keep:



She claims to give a valentine card to each of her 150 students! How is that even possible?! Here is a link to her Valentine's page:

### **Nerding Out Resources on Valentines Day**

Sara VanderWerf is someone whose website is good to have on your resource page. She is a prolific sharer and creator of content used in the classroom and tested in her own classroom.

Here is a link to her website: [Sara VanderWerf](#) (I really like the Green Page idea.)





## COOL TEACHER STUFF

CONTRIBUTED BY LAURA STOKES, RETIRED CRAC RESOURCE SPECIALIST

# COUNTING COLLECTIONS

Studies demonstrate that counting is one of the most effective methods for children to develop number sense. We need to use this method more in elementary schools. How can we address this? Enter - Counting Collections – a teaching approach where students gather a group of objects to count in an organized manner. Best of all, this is a collaborative activity that fosters discussion among students.

### HERE'S HOW IT WORKS:

1. Gather items to count.
2. The Teacher determines the collection size based on his/her goal and students' needs.
3. have cups, bowls, ten frames, etc..., available for students to organize the count.
4. students count!
5. A recording sheet includes students' initial estimates, how they organized the count, and their representations of the collection and count.
6. While students count, the teacher records! Record how they organize the counts, how efficiently they counted, how they explained their representations, etc...

The items you use are limited only by your imagination! i.e., shells, keys, coins, bottle caps, hair clips, sugar packets, toy cars, beads, seedpods, acorns, corks, playing cards, popsicle sticks, pencils, etc. Include materials that require counting by groups. Students do not open the packages. They cannot touch the objects and must use the package size. This 'no-touch rule' allows older children to begin thinking about counting collections in multiples.

CONTINUED...





# COOL TEACHER STUFF

CONTRIBUTED BY LAURA STOKES, RETIRED CRMC RESOURCE SPECIALIST

CONTINUED...

The subsequent shifts in reasoning are:

- If ten boxes (of 100) are shrink-wrapped together, how many paper clips are in the whole package?
- How many paper clips are in the classroom if we include the half-used box at the teacher's desk?
- How can we add up \_\_\_ without peeking into the boxes?
- How many plastic bags are in a case of ten boxes (125 to the box)?



### ***Want to make it more challenging?***

Have children add collections or fractional parts of collections together. Organizing a school Counting Collections library/closet is a time-saver for teachers. This increases the number of available collections, and teachers can check-out collections to use in their rooms.

While children are counting, ask questions such as:

1. How are you going to count your collection? How did you decide on your plan?
2. How many objects are in your collection? Can you prove that to me?
3. Can you draw a picture to show how you counted?
4. What does this model represent/mean?

Counting isn't just a kindergarten skill that a 5-year-old masters. It is a skill that lays the foundation for performing all operations, determining how accurate an estimate is, and visualizing the magnitude of a number – just to name a few. Start collecting, and let your students count!

### **Resources to further explore**

#### **Counting Collections:**

- <https://tedd.org/counting-collections/>
- [Counting Collections article](#)
- [3rd Grade Counting Collections video](#)
- <http://www.meaningfulmathmoments.com/counting-collections.html>
- Choral Counting and Counting Collections: book by Megan L. Franke, Elham Kazemi, and Angela Chan Turrou







# YAY!

# MATH MASTERS

ANNUAL COMPETITION 2024



2023 FIRST PLACE WINNERS: RICHARDS MIDDLE SCHOOL

## MARCH 16, 2024

THE ANNUAL MATH MASTERS COMPETITION: A MIDDLE-GRADES MATH CHALLENGE THE CRMC, THE DEPARTMENT OF TEACHER EDUCATION, AND THE DEPARTMENT OF MATHEMATICS HAVE COME TOGETHER TO CREATE A STIMULATING MATH COMPETITION TARGETING MIDDLE-GRADE STUDENTS. THIS COMPETITION AIMS TO CHALLENGE AND SUPPORT STUDENTS' INTELLECTUAL GROWTH BY PROVIDING TASK-BASED MATH PROBLEMS THAT REQUIRE TEAM COLLABORATION TO SOLVE.

### WHY PARTICIPATE?

Naturally, it's all about snagging a shiny trophy...but the real *crème de la crème* is testing yourself with difficult challenges, sharing with teammates, and learning from others!



For more information and to register, scan the QR or visit our Event Calendar: <https://columbusstate.libcal.com/event/11253389>



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Click here to read more about our website:

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Math Magic Going!  
Pledge your Support!

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