

# NOTES TO NERDS

Columbus Regional Math Collaborative

March 9, 2022

- Workshops
- Director's Notes
- Upcoming Events
- The Voices of CRMC
- Teaching Resources
- More News You CAN Use

Homepage:

[CRMC.Columbusstate.edu](http://CRMC.Columbusstate.edu)

## FACE-TO-FACE WORKSHOPS

Use the links below to check out upcoming workshops on our website!

[Elementary School](#)

[Middle School](#)

[High School](#)

Face-to-Face workshops are available to Muscogee County Schools at no cost to teachers! After the workshop, you will receive an evaluation. Upon completion, you will receive a certificate of attendance.

Take a look at the next page for our upcoming workshops!

# UPCOMING WORKSHOPS

## Math Practices That Engage & Teach: High School Face-to-Face Workshop

Nancy and Pete will present ideas and strategies that you will experience firsthand - as a student might - and then look at them critically through the eyes of a teacher. We know that we become better teachers by sharing our thoughts and experiences. But, make no mistake; you will come away with materials and strategies you can use the very next day.

Subjects of focus will be Algebra 1, Geometry, and Programming.

Tuesday, March 22, 2022

8:30am - 3:30pm

Frank Brown Hall 1010

[REGISTER HERE!](#)

## More of - With a Little You Can Change a Lot!

As school ticks closer to testing season, what practices can a teacher leverage to get the best results for students? We at the Math Collaborative believe good things come in small packages. So, join us to learn about changes that can significantly impact students' reasoning, discourse, review of skills, and interest.

Grades 3 - 5

Thursday, March 24, 2022

8:30am - 3:30pm

Frank Brown Hall 1010

[REGISTER HERE!](#)

# WHAT'S NEW & UPCOMING EVENTS

**March 12, 2022 - Math Masters**

We are excited to host the Math Masters event this Saturday, March 12! A special thanks to Nancy Mims and her amazing work! We will have 11 teams and 12 challenges!

**AND SO MUCH MATH FUN!!!!**



**Job Opportunity!**

We are seeking **experienced** teachers to work at the Mathematics Collaborative. If you are a K-2 or high school teacher interested in helping other teachers and learning yourself, please contact Peter Anderson - Director.

# MORE NEWS YOU CAN USE!

## BLESSED TO BE BUSY!

Over the past few weeks, the GRMC has had the honor of visiting numerous schools.

**Russell County** invited us to present during their professional learning day. We are so impressed with the energy and growth mindset of the teachers at Ladonia Elementary, Mt. Olive Primary, and Mt. Olive Intermediate Schools!

**Dimon Elementary** invited us to share a deep dive into Numberless Word Problems.

Peter got to spend time with Allen Webb's 7th-grade classes at **St. Luke**. We had some great discussions on intersecting lines and angles.

**Jordan High's** senior math class was able to make connections with geometry and families of functions with a Grow Dogs Activity. Special thanks to Ashley Thorne and Adrian Starling for inviting the GRMC to visit.

We had a fantastic visit with the **Columbus High School Math Club** on March 1st! Thank you for the invitation!

# MORE NEWS YOU CAN USE!

## NumWorks Calculator: Free?

You probably wouldn't be happy about using the phone you had ten years ago. Yet, the calculators we use in our classrooms have not evolved in decades! NumWorks has created an intuitive calculator that brings simplicity into the classroom. As a high school math teacher, you can take advantage of their exclusive offer now and get a NumWorks calculator for free! Join their community at [www.numworks.com/community](http://www.numworks.com/community)

March 2, 2022

## Future Georgia Educators Day

A special shoutout goes to our Colleagues at CQTL and the Professors in the College of Education for conducting Future Georgia Educators (FGE) Day here at Frank Brown Hall. High school students learned about becoming a teacher! Great job Roger Hatcher and Team!

March 1, 2022

## Understanding Division - Crossing Borders with Mathematics

The East Alabama Council of Teachers of Mathematics and the Chattahoochee Council of Teachers of Mathematics presented this event. It was a great networking opportunity! Thank you to everyone who participated.

# DIRECTOR'S NOTES

## TOUGH AS A DAISY



The other morning as I left for work, I noticed a daisy bud in the space between our driveway and garage. I take notice of daisies because they are my wife's favorite flowers. However, it's still cold and wet and kind of uncomfortable in the mornings. So, this was unexpected. Somehow, I am always surprised when I see the first daisy bud of the season.

In my joy, I snapped a picture to share with my wife.

Then, off to work and into the busyness of the day!

It's a blessing to work with teachers and be in the classroom, elbow to elbow, with students. But, unfortunately, almost two years to the day, we lost that stability of class life.

*This message is not about marking that event.*

My intention is to take a moment to appreciate the efforts teachers are making now. Have no doubt that I understand how hard things are for teachers.

The past couple of weeks I've visited no less than half a dozen schools and met with, probably, two-dozen teachers. The remarkable thing is how invested teachers are in making things better for their students. Another thing that I notice is that, for the most part, when students see their teachers making an effort, they respond positively.

While working with a teacher, it has been heartbreaking to see her worn down by the pressures and pace of the school day. So, at our last meeting, I was surprised when she shared an open task lesson she was preparing for her students. She took a chance on increasing their engagement by presenting the lesson a little differently. Checking on her the next day, she felt the students deeply engaged with the lesson. It went well.

**Wow! A daisy bud.**

Another teacher, who has struggled with student behavior and engagement, allowed me to observe and work with her. She had prepared so much, intent on students getting the lesson. Unfortunately, the students did not appreciate her efforts. It became apparent there was a lot of tension and frustration both on the teacher's and the student's sides. I asked whether the students knew how much she cared for them? She said, "Yes, I think so." I responded, "Do you ever tell them?" Silence.

The teacher and I eventually held a meeting with a cohort of students from the class. We listened as they told us how the course might be better. The students' comments had to be hard for her to hear. It took a fantastic amount of courage for her to be vulnerable. But, in no uncertain terms, the students realized how hard she was trying. It is a challenging class, but things seem to be going much better thanks to her efforts.

### **Another daisy bud.**

At an academic coaches meeting, a colleague and I followed a solid presentation on the new math standards rolling out in Georgia. It was apparent the coaches had a lot on their plates and minds. As I looked up at the array, noses were in Chromebooks and cell phones. I was a bit in awe of their responsibilities. So, I started our session by saying, "Put away your computers and phones. Relax and explore for a few minutes. You only need a piece of paper, and, maybe eventually, these Cheez-Its." To my amazement and gratitude, they pushed the world aside for almost an hour. Together, we explored some mathematics, made connections, and built a paper box for those Cheez-Its. Even adults need a nudge from the world and technology for a moment.

### **A daisy bud.**

It is hard work that teachers are doing every day, and it is more important than ever! You will have daisy bud moments. They might come in unexpected places, like between the driveway and garage, where you least expect them. Hold onto them—the joy of teaching.

Please [share](#) with me your own daisy bud story. I bet there's a teacher who needs to hear it.

Happy Maths,

*Pete*



# Get Rich With NRICH.MATHS.ORG

By Laura Stokes

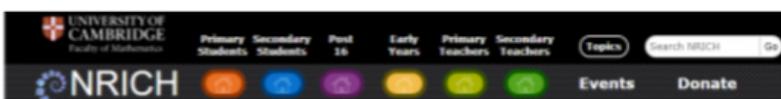
As a classroom teacher, I always enjoyed when students' heads would whip up from the work they were doing as I announced that it was time to go to lunch or the class period was over. I knew that I had done my job of engaging my students' thinking to the point that they weren't watching the clock and they were absorbed in their work.

The chore for us is to find those good tasks that engage our students. We can create our own or, better yet, find them already created. Have you discovered [nrich.maths.org](http://nrich.maths.org)? If not, let me take you there. This is a site that has many tasks that you can use in your classroom.

The website is very straightforward. Select which level of students you teach, and then have fun exploring the site.



Portion of site that has activities centered around a specific math concept. You can also explore "past features."



Welcome to the Primary Student Homepage

A screenshot of the 'Latest Feature' and 'News and Recent Solutions' sections of the NRICH website. The 'Latest Feature' section has a red background and features colorful geometric shapes. The 'News and Recent Solutions' section has a purple background and features a person sitting on a rock with arms raised. Both sections include text and links for further exploration.

Students have the opportunity to submit their solutions and see how they fared compared to others.

Find activities and games (both paper pencil and interactive) based on math topics.

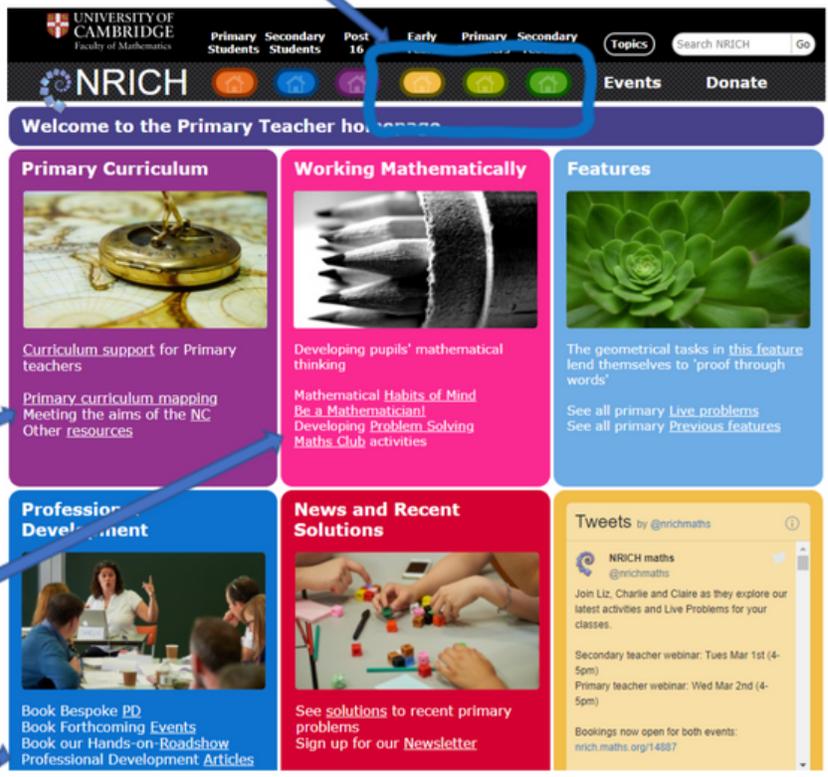
A screenshot of the 'Activities and Games' and 'Thinking Mathematically' sections of the NRICH website. The 'Activities and Games' section has an orange background and features colorful geometric shapes. The 'Thinking Mathematically' section has a green background and features a person playing with blocks on a table. Both sections include text and links for further exploration.

Find activities that create thinkers who are curious, resourceful, collaborative, and resilient.

Another valuable component of this website are the teacher resources that are included.

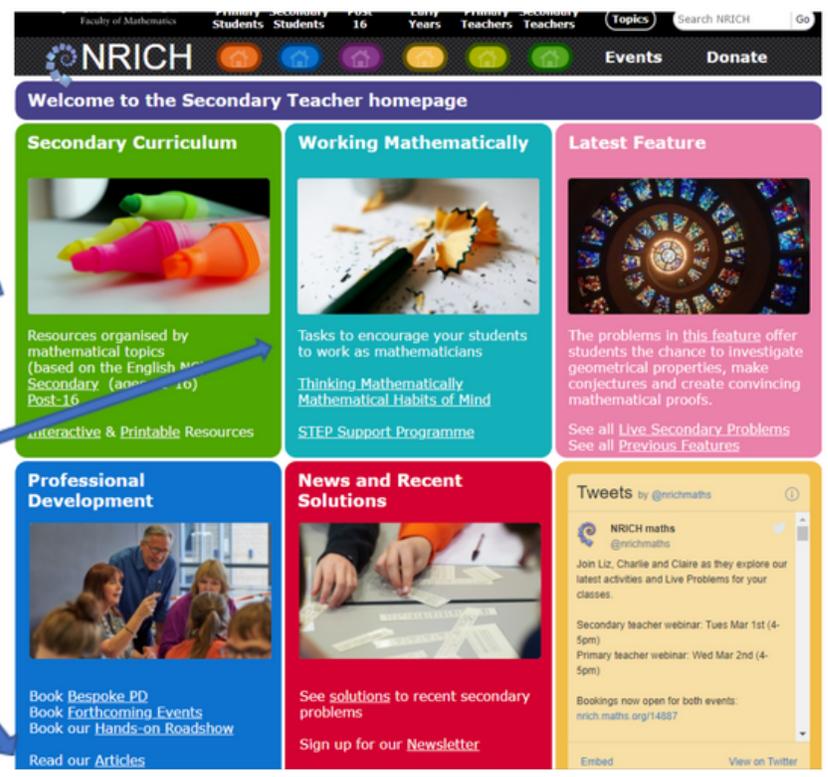
Use Curriculum Map to match activities to standards (Nrich is from the University of Cambridge, but the standards are similar to local standards).

Explore good articles.



Secondary teachers: click on secondary and then find "[NRICH Secondary Curriculum Mapping Document \(Google document\)](#)" for the document.

Explore good articles.



This site is a go-to site for me whether I am looking for activities to use in a classroom, activities to use in a workshop, or articles to share with teachers to help them understand a concept. I hope that you enjoy exploring the "richness" of [nrich.maths.org](http://nrich.maths.org).

# INNOVATIVE (& FREE!) RESOURCES FOR TEACHING FRACTIONS



Check out: <https://mathcomichero.com/activities/> for more free resources!



Three lessons in one! Two lessons are on fraction multiplication and one is on dividing a fraction by a whole number.



No need to scan! All of the activities are displayed in the graphic novel



Exit and Entrance Tickets for Issue No.1 and Issue No.2 are also included!

The Mysterious I.D. Vide in Newton's Nemesis, NO. 1

**Leah's Homework**  
HOW DO YOU THINK THEY WOULD USE EACH OF LEAH'S PROBLEMS TO TEACH HER ABOUT FRACTIONS?

1.  $4 \times 3 = 12$   
 $12 \div 4 = 3$

2.  $3 \times 4 = 12$   
 $12 \div 3 = 4$

3. Maria and Ja'Kayla drew different diagrams to show  $18 \div 3$ .

Maria's:  $18 \div 3 = 6$

Ja'Kayla's:  $18 \div 3 = 6$

What do you think Maria and Ja'Kayla are thinking? Are they both correct?

**Can You Share a Third?**  
DIVISION MEANS EQUAL SHARING.

Jake and Luke have equal shares of a pizza. How much pizza would each boy get?

PUT WHAT IF A THIRD IS DIVIDED?

THEY USED LEAH'S PROBLEMS TO SEE WHAT HAPPENED WHEN YOU DIVIDED  $\frac{1}{3}$  BY DIFFERENT NUMBERS. THE PAPER BECAME SMALLER, BUT THE PARTS BECAME SMALLER, BUT THEY DON'T KNOW WHAT THEY WERE.

DO YOU KNOW?

$\frac{1}{3} \div 3$

$\frac{1}{3} \div 4$

$\frac{1}{3} \div 2$

**Folding Fractions**  
DEAR READER,  
WHEN YOU FOLD PAPER IN HALF... AND IN HALF AGAIN... AND IN HALF AGAIN...

WHAT FRACTION OF THIS FOLDED PAPER IS SHAPED?

$\frac{3}{9} = \frac{4}{12}$   
 $\frac{6}{9} = \frac{7}{12}$

**Why Did the Potion Explode?**  
THE WITCH FAST AND PRECISE? OR DID HER TAKE CAUSE THE EXPLOSION? YOU DECIDE!

**Pythagoras' Potion**  
For a strong man

BE A LARGE CAULDRON TO A BOIL. CAREFULLY ADD EXACTLY: 5 BEES, TO ROOT OUT HIS STRENGTH. 1 CUP OF SAGE, TO TAKE HIS DISCOMFORT. 1 YARD OF COTTON, BECAUSE DYES ARE TOSTEN.

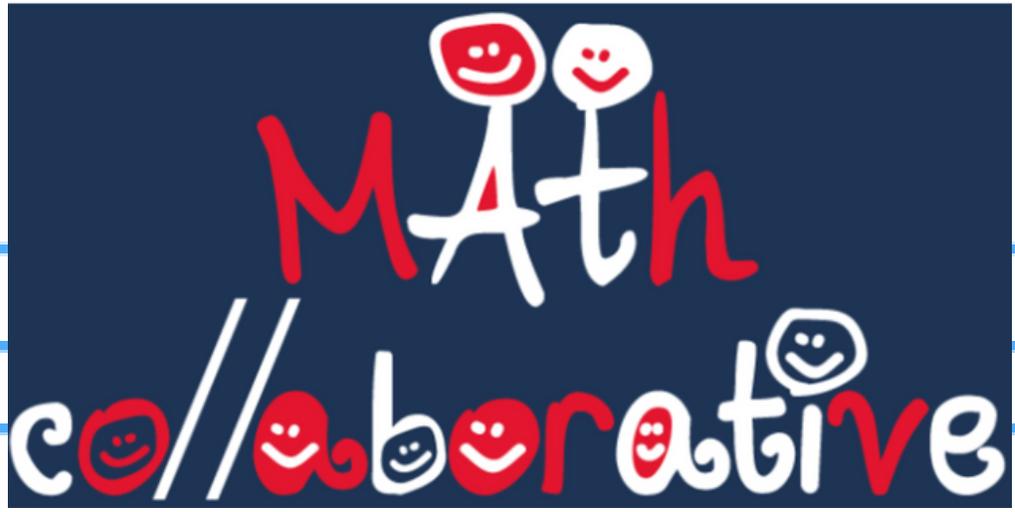
IF THEY WEIGHED 30KG, WHY DID THE WITCH NEED TO TAKE  $\frac{1}{3}$  OF EACH INGREDIENT?

... SLOWLY END WITH THESE SONGS TO JUST

... CUPS OF SAGE?  
... YARDS OF COTTON?

NOW GO BACK TO THE DREAM TO SEE IF SHE ADDED THE CORRECT AMOUNTS!

NOW BACK TO OUR STORY!



Click here to read more about our website  
[Columbus Regional Mathematics Collaborative -](#)  
[Columbus State University.](#)

click the icons below to follow us on  
social media!



**Columbus Regional Math Collaborative**  
Frank Brown Hall  
1127 Broadway  
Columbus, GA 31901

**Mailing Address:**  
4225 University Ave  
Columbus, GA 31907