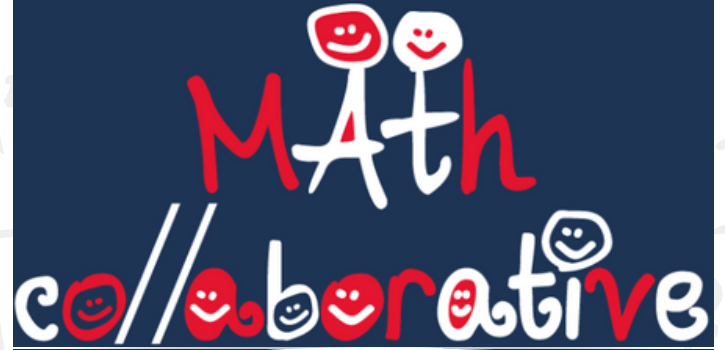
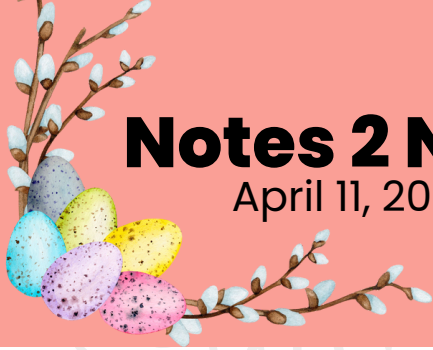


# Notes 2 Nerds

April 11, 2023



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## Upcoming Events:

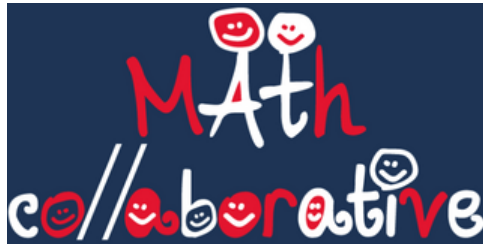
- [New Georgia Math Curriculum Training, April 18, 2023](#)
- [Professional Development: Teaching with Tasks, Grades 6-8, May 4, 2023](#)
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- [Professional Development: Teaching Through Tasks, Grades 9-12, May 11, 2023](#)
- [Annual MathCON Summer Conference, July 11-13, 2023](#)

Teacher Development and Consulting



I ❤️ MATH

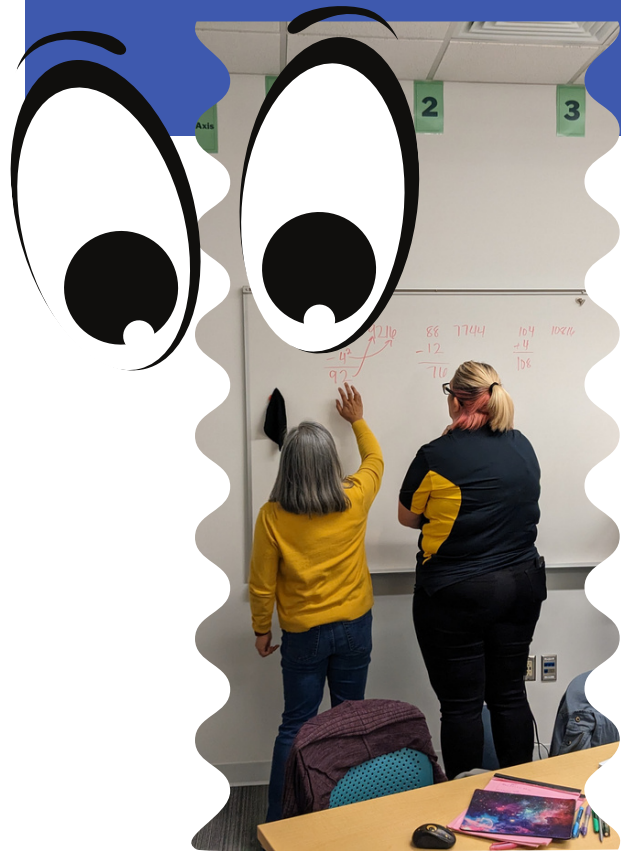




# LOOKING AHEAD:

## WHAT'S UP WITH THE NEW GEORGIA MATH STANDARDS

by CRMC Director,  
Peter Anderson



Join us for a two-hour evening session that will help you get your head around the new Georgia math standards. The emphasis will be on the following:

- Help navigate the website (we will show you the good stuff!)
- Envision what the standards will look like for your classroom.
- A game plan - for resources ...*if needed*
- NO frills or wasted time - just the straight low down.

When: Tuesday, April 18, 2023, 5:30 - 7:30 p.m.

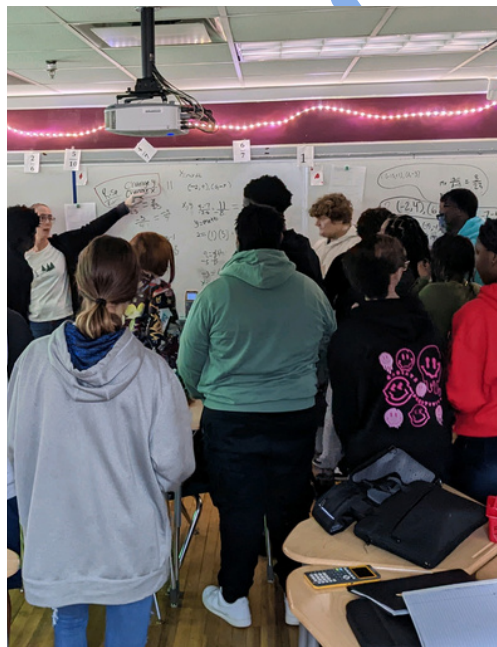
Where: CSU, Frank Brown Hall, Room 1010

Cost: \$10 registration fee (course materials and light refreshments will be provided)

How: Click or Scan to Register Today!



<https://columbusstate.libcal.com/event/10573770>



For more information, contact CRMC Director, Peter Anderson: [anderson\\_peter2@columbusstate.edu](mailto:anderson_peter2@columbusstate.edu)



# REGISTER NOW!



**TWO OPPORTUNITIES!**  
Learn about the new  
GA Math Curriculum:

- [April 18, 2023](#)
- [May 6, 2023](#)



For More Info:  
[anderson\\_peter2@columbusstate.edu](mailto:anderson_peter2@columbusstate.edu)



Contact Us:  
706-565-1475



**DID YOU MISS IT THE FIRST TIME?  
WE'VE GOT YOU COVERED!:**

Algebra Professional  
Development *Teaching  
Through Tasks:*

- [Grades 6-8, May 4, 2023](#)
- [Grades 9-12, May 11, 2023](#)



*Surprise! We are Not in Unit 1  
Anymore!*

- [Grades 6-8, May 11, 2023](#)



# BUILDING THINKING

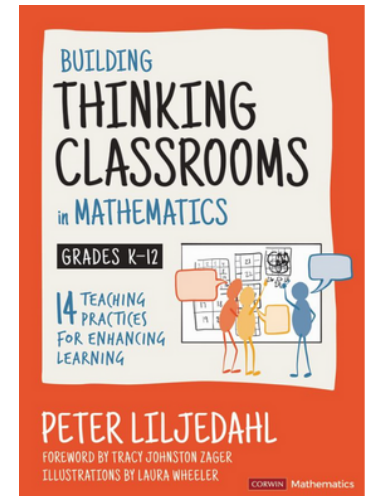
## Classrooms Cohort

Are the things you are doing in class not connecting with students?

Would you like to engage your students more deeply?

Are you ready for a change that works?  
*(I know you have heard this before.)*

So, kick the tires and see if the promise fits.  
It costs nothing but your willingness to participate.  
We meet about once a month, after school, at Frank Brown Hall. We develop and share lessons for teaching your subject. We are looking to grow our Building Thinking Classroom Cohort with High School and Middle School teachers.



### Resource Link

If you are interested,  
contact Peter Anderson: [anderson\\_peter2@columbusstate.edu](mailto:anderson_peter2@columbusstate.edu)

# ANNUAL MATHCON

*Summer Conference  
Atlanta, Georgia*



Calling all Blended Teachers, Counseling Staff, District Leaders, Elementary Teachers, ESOL Teachers, Gifted and Talented Teachers, High School Teachers, Instructional Coaches/Coordinators, Middle School Teachers, RESA Mentors, School Leaders, Special Education Teachers, State Schools, Teacher Leaders!

The Annual MathCON Summer Conference offers engaging professional learning to teachers and leaders related to the implementation and instructional planning for Georgia's K-12 Mathematics Standards, including evidence-based instructional strategies to use in the classroom.

[For more information or to register, CLICK HERE](#)



# Director's Notes

## Testing and Re-testing and De-testing

No sooner did I begin to write this piece than the phone rang - It was from a principal seeking resources to remediate students for re-testing. But remarkably, the test has yet to be taken.

I understand the pressure. I get it.

Testing is how educators and schools are measured. It is our scoreboard. Test scores label our year a success or our school a failure. Yet like the score posted at the end of a contest, there is so much more that happens, both bad and good.

*What do we do with a score?* That is the real question.

On Thursday of this week our staff will present a workshop on assessments. Like many of the topics we engage with here at the Collaborative, we allow ourselves to fall down the rabbit hole into a space of learning, sharing, questioning, and challenging. My colleagues' creativity, insight, and thoughtfulness amazed me as they pursued a clearer understanding. One teacher remarked that we all do - Informative assessments - continuously.

As I reflected on early iterations of my teacher self - this was not true. I was laser-focused on the unit test. I would even play a 'game' with myself predicting my students' test scores before the test. ( I would even write them down in the back ledger sheet of the old paper grade book. The kind where the pages folded back so you could continue to carry students' names page after page.) I was awful, to begin with! But, as time passed, I got better at predicting the scores - almost perfect! Not because of some magical power I developed but because I began paying closer attention to what was going on with my students' learning leading up to the test - Informative Assessment.

Eventually, I realized that grading was not enough. When students would take a test, I would copy their work, grade the original, return the ungraded copy to the student, and ask them to mark their paper to determine their grade. The discussions and discourse in class on the correction day blew me away! When they corrected their copied version of the test and gave themselves a grade, it was almost always within a point or two of my marks. Usually the student graded themselves more critically! Only after they had graded their copy would they get the teacher-graded version of the test. Students often reviewed my work to see if I had given them appropriate credit. At this point, the students would have considered the material on the test a minimum of three times. From a teaching standpoint - this was time well spent.

I applaud the principal mentioned earlier for contacting the Math Collaborative requesting remediation resources before the testing cycle. But the question remains - what do we do with the scores? Will they be immortalized in scoreboard fashion, or will they be used to benefit the student?

Here is a loose quote I intended to start with; it seems more fitting here at the end - "Never regret what has happened. It can not be changed, undone, or forgotten, so take it as a lesson learned and move forward." So how do educators learn and move forward from testing? It is your move.

Happy Maths,

Pete



$a(b \times c)$

# Professional Learning and Cool Teacher Stuff

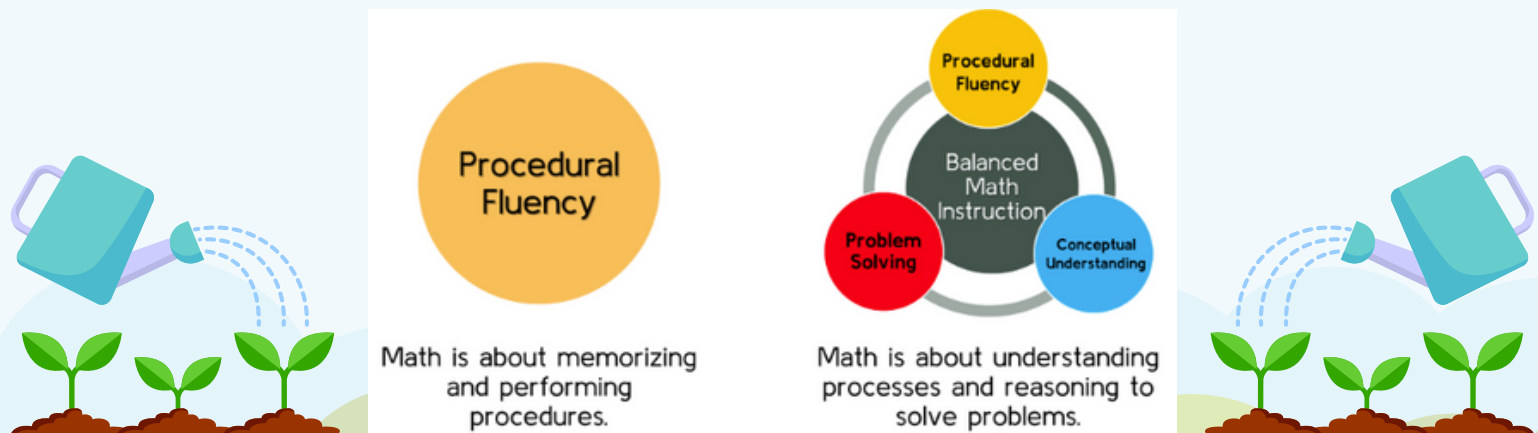
## "Teacher, Teacher, How Does Your Garden Grow?"

submitted by Karen Hensen, CRMC Resource Specialist

There is no denying that math is relevant to everything we do. However, this is too often elusive to students and the population at large. While math is everywhere, it is often "hidden". Not long ago, individuals needed to know how to perform simple arithmetic calculations often in their day-to-day lives. Today, technology "hides" procedural fluency. It allows people to think it is moot and unnecessary because it is literally "hidden" in the palm of one's hand.

As technology changes, math evolves!

This requires a shift in how we approach and prepare future generations to relate to it. It is a hard sell to rationalize the importance of learning/doing mathematics under the old regime of algorithms. To meet the needs of students today and in the future, there is a migration from procedural fluency toward understanding. A flowing equilibrium between conceptual understanding, problem-solving, and procedural fluency is necessary to develop the 21st century learner. This is reflected in the new Georgia standards. Donna Boucher beautifully illustrates this in her graphics:



### Help your students grow by providing them with endless opportunities!

- Confidence using math in school and at home
- Attitude development to continue pursuing mathematics
- Critical thinking development
- Appreciate all perspectives of mathematics

### But how do I get there?

- Focus on strategic thinking and reasoning:
  - Cognitive flexibility! This is a core skill for workforce success.
- Align mathematics to workforce needs and 21st century skills:
  - Incorporate math practices into content standards
  - Emphasize math modeling K-12
  - Increase the presence of statistical reasoning K-12. This prepares students for life after high school.

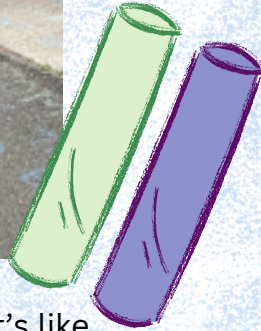
### Resource Garden:

- [Flipping the I Do, We Do, You Do Script - Donna Boucher](#)
- [Conceptual and Procedural Knowledge - Jenny Bay Williams](#)
- [Conceptual Understanding, Procedural Fluency, and Application](#)
- <https://numberdyslexia.com/conceptual-math-vs-procedural-math/>
- [Computational Fluency, Procedural Fluency, Conceptual Understanding, What do these mean?](#)

# Professional Learning and Cool Teacher Stuff

## "Bunch of Grapes"

adapted from: Six Strategic Pen-and-Paper Games  
(from a Strange and Bottomless Mind) by Ben Orlin



This is, in one sense, a standard game of territory control. It's like dozens of others I've encountered. It was a favorite of the driveway chalk gang at the Anderson Home.

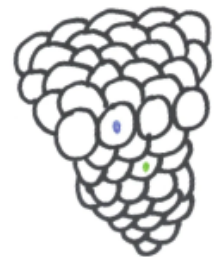
**First**, draw a bunch of grapes. Make it clear which grapes share a border.

**Then**, by turns, each player picks a grape on which their "fly" begins, and marks it with a colored dot. Then, take turns moving. (Whoever placed their fly second should begin.)

On each move, your fly consumes the grape it's on (shown by fully coloring in the grape), then moves to an adjacent grape.

**Whoever winds up unable to move, because there are no adjacent grapes available, is the loser.**

Here, three more moves have been made:



The strategy seems straightforward, but the grapes can trick the eye, lending an element of suspense. (You may have less territory left than you think!)

Also, whereas most pencil-and-paper games leave the paper coated with crisscrossing gibberish, this one ends up like a page from a coloring book.



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