Notes 2 Nerds

November 7, 2022

Teacher Development and Consulting

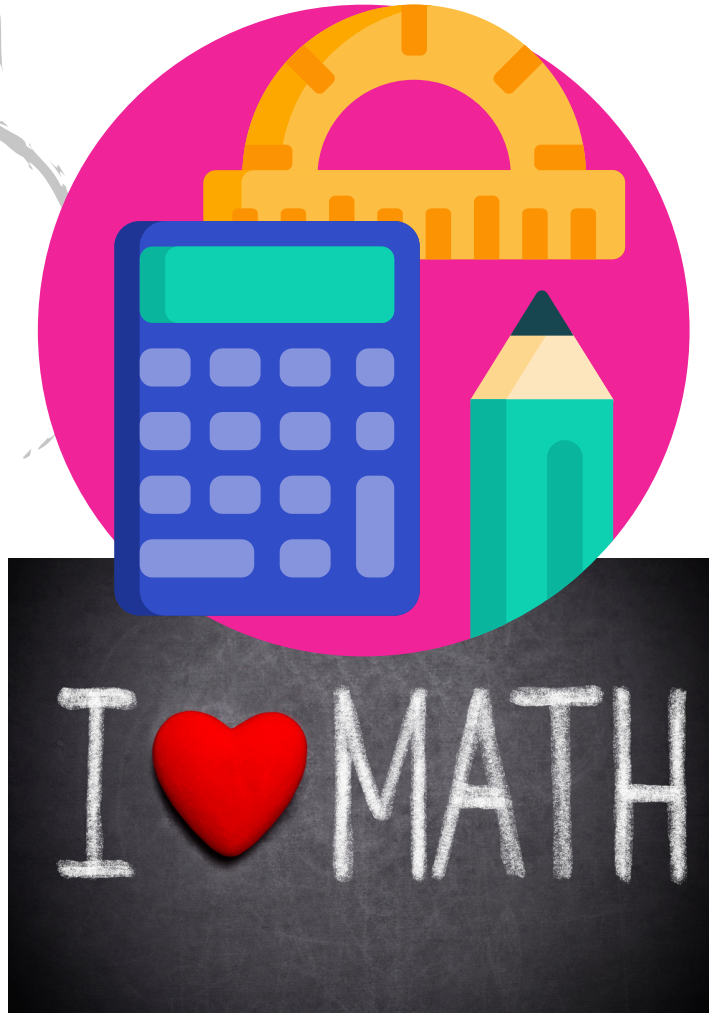
In This Issue

Professional Development

- Grades 3-5, November 15

Save-the-Date

- Professional Development: High School, January 19, 2023
- Professional Development: Grades K-2, January 24, 2023
- Professional Development: Middle School, January 25, 2023
- Professional Development: Grades 3-5, January 26, 2023
- Math Masters: March 11, 2023



Director's Notes

"Autumn leaves don't fall. They fly.
They take their time and wander on this their only chance to soar."
- Delia Owens

If your year is like most teachers, I know.
It is full - not to the brim of a teacup full - but full to the edge of a stopped-up *lavatory* - full.
Regular day demands, a team member out sick coverage demands, just dog tired from the week before demands, stacked one on another, and before the last student on the late bus arrives.
Your day is completely full.
It makes a soul weary and tired.
Teachers, we see you.

Transferred to another school on a Monday after just two weeks of school, a middle school teacher struggles with new students–already two weeks without instruction–an environment that would stress even the most experienced teachers. Another teacher struggles to maintain consistency as school closes for a couple of days because of the flu bug (yes, it is still a thing.) A teacher can barely catch her breath with after-school credit recovery and other duties. An administrator confides that a third of the staff was out sick during the week.

These educators, and many of you, are in situations where support seems far off or nonexistent.
Yet, all the while, you might feel like a falling leaf.
I claim that many of you are the falling leaf, soaring amid winds determined to knock you down.
We see you.

The first-year teacher who shows up daily for his students who are as new and challenging to him as the world must seem to them;
The teacher who finds ways to reach her students even when the school closes;
The duty-laden teacher continues to bring amazing lessons to her students;
The administrator seeks to find ways to support the faculty.

Teachers, you all are soaring. The grace of any given moment holds the opportunity to soar.

In no way do I seek to call you to heroics beyond measure. However, as a profession, society, and the beautiful individuals we serve, we need much more support than is currently available. I want to recognize the strength, determination, and courage teachers bring to each moment. Even as you feel you are falling, there is much soaring happening.

I hope you see that in yourself and call attention to it in your colleagues.

YOU make a difference.

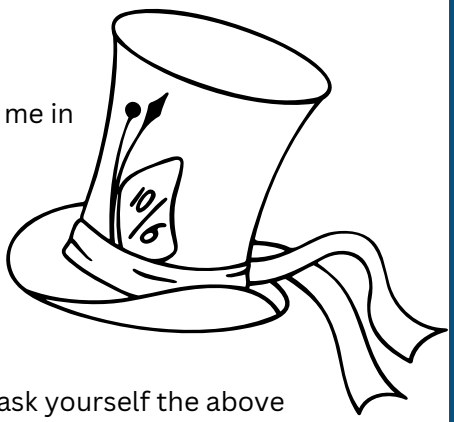
Happy Maths,

Pete

Professional Learning and Cool Teacher Stuff

Elementary School (Middle and High School Teachers May Want to Take a Peek....
Contributed by Ms. Laura Stokes, CRMC Professional Learning Specialist

Rabbit Holes – They aren't just for Alice!



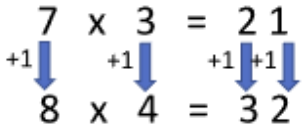
Lately, I haven't just been falling down rabbit holes; they have been sucking me in – pulling me off task but into a fun world of questioning and wondering,

"I wonder, why does that work?"
"I wonder, does it always work?"
"I wonder, can I find a solution, an answer?"

Join me on a journey into "Wonder" land!
Originally from a Marilyn Burns blog post: Where's the Math?, I want you to ask yourself the above questions as you look at this 3rd grader's observation:

7 x 3 = 21
8 x 4 = ?

The student reasoned that the product was 32. When questioned what her reasoning was, she stated:



Instead of shutting down the discussion, and telling the child, "That's not how multiplication works," Marilyn Burns immediately picked up pencil and paper to investigate this conjecture. She then challenged the student and her classmates to test it. They found equations where it worked and equations where it didn't. I did the same thing, and once I found equations where it didn't work – that's when the falling down the rabbit hole started! I looked for a pattern that WOULD work EVERY time. Instead of adding one to each digit in the original problem, is there another possible pattern that will determine the product?

You can argue, "Isn't it easier to just memorize the facts?" I would argue, "Yes, but let's also encourage questioning and reasoning as a big component of our math instruction." Create an atmosphere of questioning in your room.

I would love to hear your thinking on why this works sometimes and others not. Have you found a possible pattern that connects problems such as these: 7 x 3 connected to 8 x 4, 4 x 5 connected with 5 x 6, 2 x 3 connected to 3 x 4, etc.

Note: If you don't know Marilyn Burns, please explore her blog and other resources: Marilyn Burns Math Blog

Professional Learning and Cool Teacher Stuff

Elementary School (Middle and High School Teachers May Want to Take a Peek....

One other rabbit hole I fell down took me to Alice in Numberland by Ben Waldram. This is a pdf with ten activities that challenge students to think.

The Caterpillar Task...

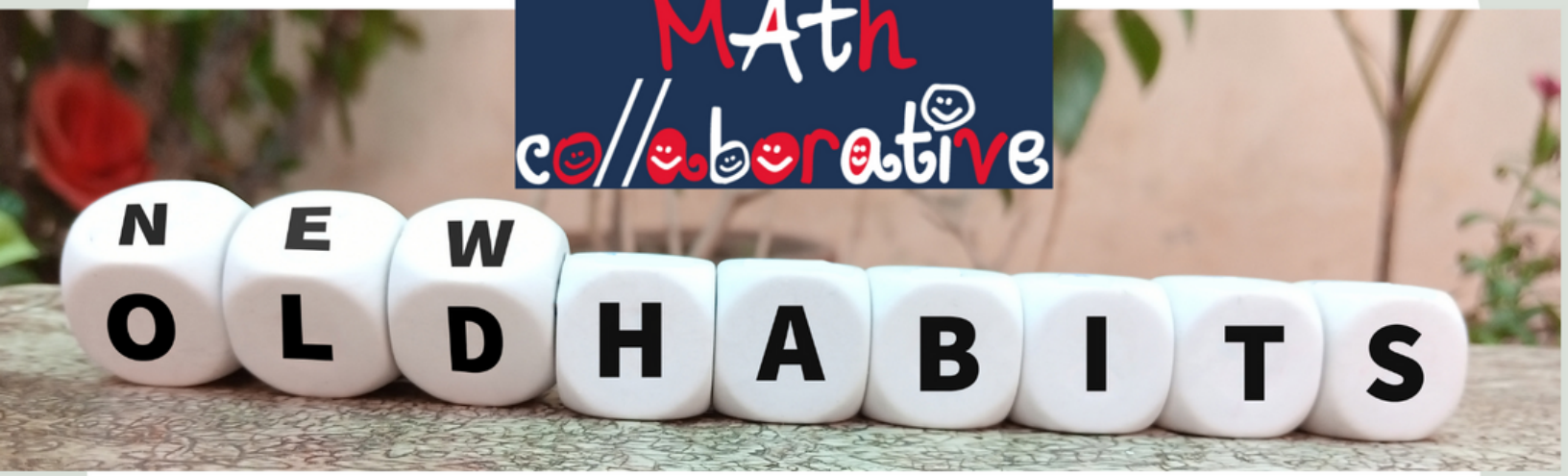
The Caterpillar is a curious creature. It has numbers on its head and back that seem to change as it grows. The caterpillar's segments each contain numbers that follow a pattern – if the number is even, then it is halved; if the number is odd, you add 1. The last segment on every caterpillar is numbered 1.

The caterpillar with a 23 on his head will have 8 segments. For example:
23 (odd, +1), 24 (even, halved), 12 (even, halved), 6 (even, halved),
3 (odd, +1), 4(even, halved),2(even, halved), 1.

- Which caterpillar will be longer – the one who has a 19 on his head? Or the one who has 20 on his head?
- Start with a Caterpillar with 84 on his head, how many segments long will he be? Can you predict?
- Can you find a Caterpillar between 1 and 100 that has the most segments?
- Can you make a Caterpillar with exactly 20 segments?

See page 8 of the pdf for extension activities and page 18 for answers: Alice in Numberland

Take your students on a trip to “Wonder” land.
Challenge your students to fall down the rabbit holes.
Challenge them to ask, “Why?”
Challenge them to wonder, “How come?”
Challenge them to try to reason and understand a math problem – not just find the answer.



HABITS TO IGNITE MATHEMATICAL THINKING

Free Admission for:
Muscogee County
Harris County
Russell County
Delta Kappa Gamma Members
St. Anne Pacelli

Who: Grades 3-5

When: Tuesday, November 15, 2022
8:30 AM to 3:00 PM, EST

Where: Frank Brown Hall, CSU Mathematics Collaborative, Classroom 1010

Why: Many students know how to 'do the math' but do not know how to 'think through the math.' Ms. Karen Hensen will help address this by looking at nine habits we want our students to use with their mathematical thinking. Among those habits students can establish are:

Monitoring their understanding
Developing schema
Predicting, inferring, and recognizing patterns
Responding to higher-order thinking questions
Using precise language when describing their mathematical thinking

We look forward to seeing you! ALL teachers of math-related subjects would benefit from this professional development.. Register today by scanning the QR code or by visiting the following registration website:

Scan me!

https://columbusstate.libcal.com/event/9777641

BUILDING THINKING CLASSROOMS COHORT

Join Our Cohort!!

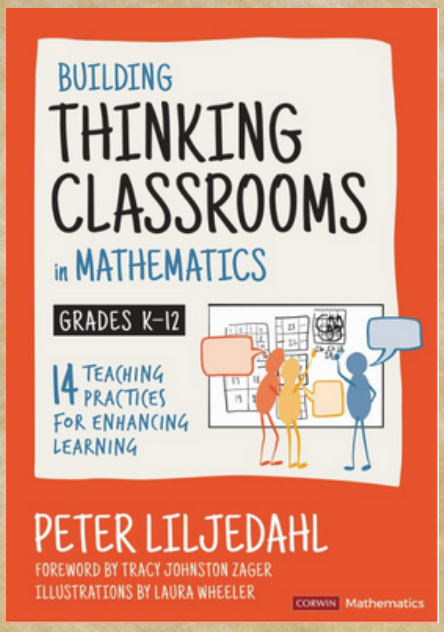
Are the things you are doing in class not connecting with students? Would you like to engage your students more deeply? Are you ready for a change that works?
(I know you have heard this before.)

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



Math collaborative

'Make It Count!'

WANTS YOUR SCHOOL

What is it?

The 'Make It Count' Project (MIC) aims to improve math fluency in second graders by building a foundation for sustained growth in mathematics. The partnership between Partners in Education and the Mathematics Collaborative (CRMC) @ Columbus State University pairs schools with volunteers who will visit second-grade classrooms to provide engaging and fun activities designed to build math fluency.

Interested?

Here is What You Need:

- Volunteers (CRMC and PIE will help recruit)
- Supervised space
- 'Make It Count' kit
- Identify students to participate
- School Point-of-Contact

Partners in EDUCATION

MAKE IT COUNT!

Contact Us Today!

Email: anderson_peter2@columbusstate.edu

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 Mathematics Collaborative
Frank Brown Hall
1127 Broadway
Columbus, Georgia 31901

Mailing Address:
4225 University Avenue
Columbus, Georgia 31907