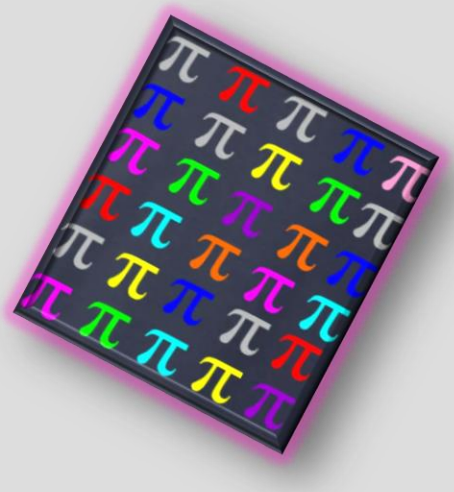
Columbus Regional Math Collaborative October 1, 2021

Notes to Nerds

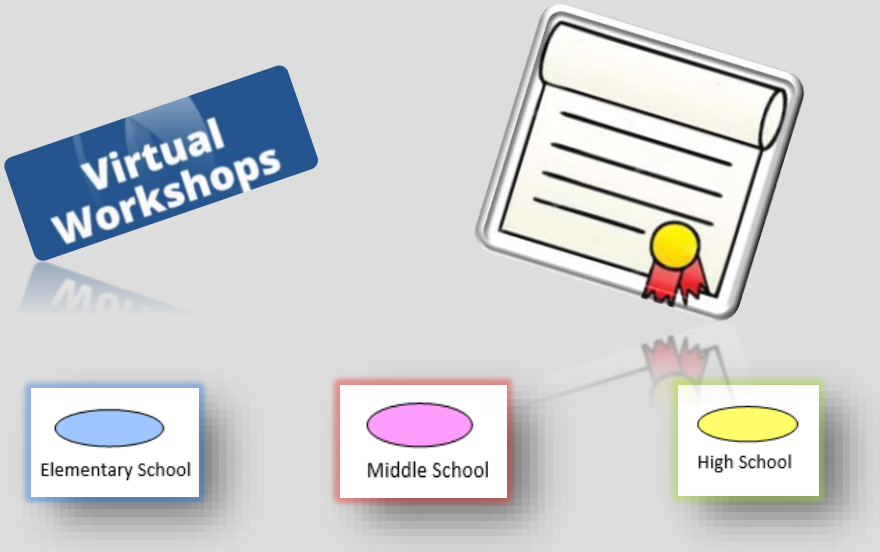
Workshops Director's Notes News Items Resource Teachers



Workshops

Workshops available to Chattahoochee County, Muscogee County, Russell County, and St. Anne Pacelli schools are **NO COST** to the teachers

After the workshop, you will receive an email to fill out an evaluation.
Note: It should take less than 10 minutes to respond
Upon completion, you will receive a Certificate of attendance for the workshop.



Date: Wednesday, October 6, 2021 Time: 4:15pm – 5:00pm

High School Virtual Workshop (Algebra)

Presenter: Peter Anderson

Date: Tuesday, October 12, 2021 Time: 3:45pm – 4:30pm

K – 5th Elementary School: Creating Mathematical Thinkers (Virtual Workshop)

Habit 6: Question for Understanding

Presenter: Laura Stokes

Date: Thursday, October 14, 2021 Time: 4:30pm – 5:15pm

6th Grade: Unit 3 - Expressions -- Thursday, October 14

Presenter: Hope Phillips

Date: Tuesday, October 26, 2021 Time: 3:45pm – 4:30pm

K – 5th Elementary School: Creating Mathematical Thinkers (Virtual Workshop)

Habit 7: Summarize, determine importance, synthesize

Presenter: Laura Stokes

Date: Wednesday, October 27, 2021 Time: 4:15pm – 5:00pm

High School Virtual Workshop (Geometry)

Presenter: Peter Anderson

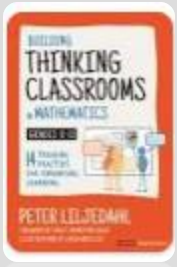
Date: Thursday, October 28, 2021 Time: 4:30pm – 5:15pm

8th Grade: Unit 3 - Geometrical Applications of Exponents --Thursday, October 28

Presenter: Hope Phillips

Virtual Book Study

Presented by Peter Anderson, Director



Date: September 28, 2021 Time: 7:00pm – 8:00pm

https://columbusstate.libcal.com/event/8202451

Building Thinking Classrooms

Warning: It will change the way you teach. Contact Peter Anderson

Director's Notes

Meetings and Fog

Driving to work, I was awed by the sky's swirly blooms of orange, pinks, and purples, born from the earth's gentle roll into the day. The road I travel turns, descending toward the lake. The morning air breathes in the moisture from the lake, creating a thick, milky stratum of solid white. A soft billowy fog envelops the car making visibility not much beyond a few feet ahead of the headlights' jabbing beams. As my car plods along slowly, the road rises from the lake, and the sky's orange, pinks, and blues become visible again. The sky is a little brighter than the previous moment.

Pondering the previous day's meeting as I drove, my colleagues and I discussed instructional strategies and student progress from the previous week. One teacher revealed her frustration with the progress students were making. She was feeling down because of attendance issues, student apathy, and the pressures to pass students.

There is a genuine fog that clouds a teacher's perception. As my colleague was speaking, I recognized those issues in my own class -- attendance woes, where 20% to 30% of the class is absent each day, students who have difficulty getting to school on time, and students in their own kind of fog, failing to see the value of learning. It can crush a teacher's soul...

If you let it.

The miracle of this conversation is that - rather than staying in the fog - we plod forward. While born of frustration, the seeds of our conversation had their roots in a desire to change circumstances for the better. As we honored and addressed each difficulty, we began to fashion plans and value the good things happening in our classrooms. The majority of our kids **are** showing up regularly. Students **are** engaging in activities. Students **are** participating in good classroom dialogue.

Sharing more thoughts and ideas, the road forward rises from the fog of our frustration. No problem was solved during our meeting, but plans and possibilities became visible. A little brighter and lighter than the previous moment...

The school announcements interrupted our meeting.
The bell rang.
The planning period was over.

My colleague left the meeting to help students work on mathematics after school.

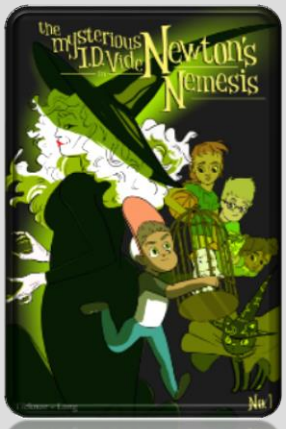
Happy Maths,
Pete

News Items

Jordan Vocational High School - **Project Share** - It has two parts:
Part One is that a resource teacher is placed in the high school for one period a day for a semester to engage students in learning mathematics using rich tasks and best practices.

Part Two is where you enter in - ***yes, you***! Come and observe, critique, and challenge us to be better educators - together.
Contact us if you or your students would like to visit. Peter Anderson

Valuable PD … for free (*and you get a certificate!*) - Several events are on tap until the end of October! (Link Here)



Free Fraction Resources – This lesson introduces ways of thinking about division and asks students to explore 13divided by 2, 3, and 4 using the first issue of CSU's Dr. Cindy Ticknor's The Mysterious I.D. Vide in Newton's Nemesis . Find the resource here.

Resource Teachers

EngageME Mathematics Engages *Me*

By: Hope Phillips

Every once in a while, I discover a website that makes me say, “Wow!” My latest such find is “EngageME Mathematics.” I found it on Facebook when the creator, Thomas Moore, used the platform to test his ideas. I’m sure he wanted to know if teachers would find his animations useful to their instruction. This teacher definitely did.

Moore’s site is full of no-sound animations that describe important mathematical concepts in bright, colorful images. From adding odd and even numbers to discovering why the long division algorithm works to discovering what radians and degrees have to do with a circle – Moore covers these concepts using visuals and/or manipulatives in no more than five minutes. Some of his animations are much shorter.

The site encourages students to watch, not listen. They are invited to *notice and wonder* about what is happening. According to Dr. Jo Boaler, visual representations in mathematics are critical.

> The provision of ways to see, understand and extend mathematical ideas has been under developed or missed in most curriculum and standards in the US, that continue to present mathematics as an almost entirely numerical and abstract subject. ***Yet when students learn through visual approaches, mathematics changes for them, and they are given access to deep and new understandings.*** The brain evidence… helps us understand the impact of visualizing and seeing, to all levels of mathematics, and suggests an urgent need for change in the ways mathematics is offered to learners.

Source: https://www.youcubed.org/wp-content/uploads/2017/03/Visual-Math-Paper-vF.pdf

Because we are all so connected on social media now, I’ve messaged Moore a couple of times to ask about his animations. He responded quickly and in depth! Moore still uploads animations to Facebook, and they are complimentary. However, he now has a site that requires a subscription. I recently paid for a yearlong subscription for $26.98. Prices on the website are listed in Australian dollars. As of this writing, the U.S. dollar is worth about three-fourths of the Australian dollar. This amount can vary, though, likely, not much. I purchased a subscription at EngageME Mathematics that grants me the following:

- Access to all of the 100+ animations from within the browser.
- Download animations to use in your own presentations.
- Stop/pause/play/scroll functionality
- New animations each week

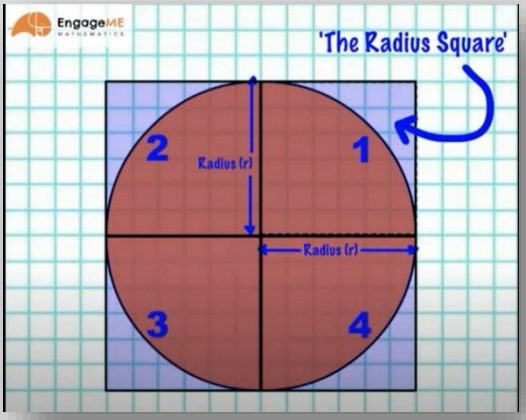
Moore allowed me to select ten animations for you to preview. You will have the same functionalities with these animations as the bullet points listed above. The animations listed below are for you to use in your instruction. Here is the link to view them all—

https://drive.google.com/drive/folders/1YbU106bwMQUqWBXfs1bdCIB1yNRz4KIE?usp=sharing

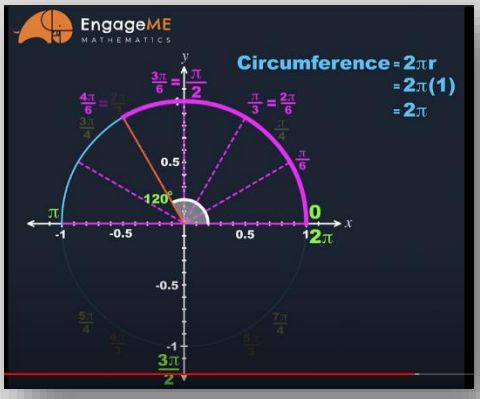
***If for some reason you are unable to access the animations via this link, please email me at phillips_hope@columbusstate.edu**

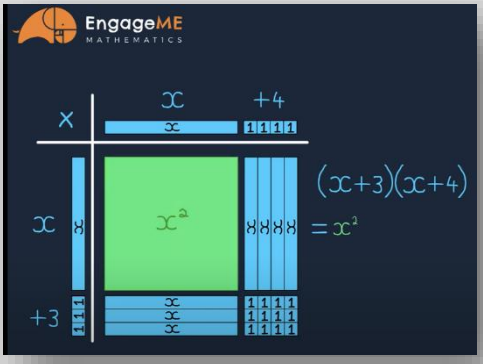
MANY THANKS TO THOMAS MOORE FOR HIS GENEROSITY!

1. Long division
2. Binomial expansion (x + 3)(x + 4)
3. 12 x 14 area model multiplication
4. Area of a circle
5. Factors of 12
6. Multiplying decimals
7. Negative powers in base 10
8. Odd + even
9. Radians and degrees
10. Simultaneous equations



The Math Collaborative has no connections to *EngageME Mathematics.* We receive no income from any subscriptions teachers purchase. Browsing Facebook, I happened upon Moore's "magic" and wanted to know more. I love knowing that he introduces new animations each week, and I look for them. Teachers may request an animation, as well. I think I will offer a suggestion very soon.






EngageME
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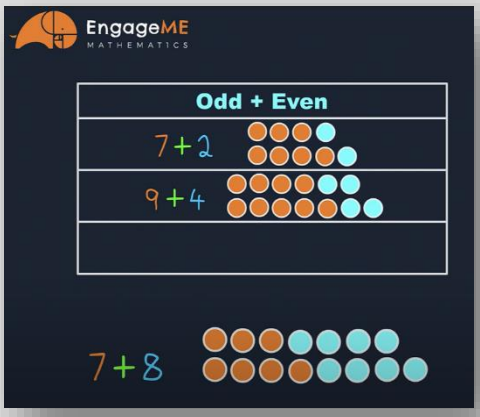
EngageME
MATHEMATICS
Odd + Even
7+2
9+4
7+8

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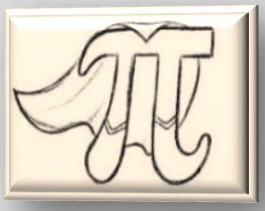

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