## Conference Program 2022

Saturday, June 4th (8:30-3:30)
Norman High School
911 West Main Street Norman, OK 73069
www.okctm.org

| $8: 00-8: 30$ | Check in \& Registration <br> Breakfast Snacks provided by PAEMST | Main Entrance <br> Cafeteria Commons |
| :--- | :---: | :---: |
| $8: 30-9: 15$ | Keynote Speaker, Sarah Carter | Theater |
| $9: 30-10: 20$ | Session1 | 700 hallway |
| $10: 30-11: 20$ | Session 2 | 700 hallway |
| $11: 30-1: 00$ | Sunch | Lunch on own, food truck |
| $1: 00-1: 50$ | Session 4 | 700 hallway |
| $2: 00-2: 50$ | General Meeting, Elections \& Door Prizes | 700 hallway |
| $3: 00-3: 45$ | OCTM Board Meeting | Theater |
| $3: 45-4: 30$ |  | Theater |

Vendors in hallway between Library, 700 hall and Main Entrance

Program Color Code: K-5, 6-12, K-12

| Room | Session 1 (9:30-10:20) | Session 2 (10:30-11:20) | Session 3 (1:00-1:50) | Session 4 (2:00-2:50) |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{r} 702 \\ \text { (library) } \end{array}$ | x | Jill Davis \& Darlinda Cassel (K-12) University of Central Oklahoma | Nancy Trent (9-12) <br> Ada High School | Paul Howard (9-12) <br> Oklahoma Christian University |
|  | x | Writing \& Reviewing for the Oklahoma Journal of School Mathematics | Function Selfie Project | Using Open Source Textbook for Precalculus/ Trigonometry Courses |
| $\begin{array}{r} 703 \\ \text { (library) } \end{array}$ | Gena Barnhill (3-12) OSDE, Angie Ledgerwood \& Donna Hogan, OSDE Oklahoma EXCEL | Gena Barnhill (K-12) OSDE, Timothy Collier, Pamela Donica \& Rebecca Grider OSDE Oklahoma EXCEL | Karen Zwanch (6-8) Oklahoma State University | David Tompkins (K-12) <br> Eastern New Mexico Univ \& Sheri Tompkins, NM Military Academy |
|  | Use Mathematical Modeling to Make Everyone Mathematicians | Accelerate Student Achievement w/ Puzzle Problems | Reenvisioning Virtual \& Physical Algebra Tiles for Teaching Integers | The Power of Previews: Students Mastering Difficult Math Skills w/ Ease |
| 704/705 <br> Double Class | Kate Raymond (6-12) University of Oklahoma | Sarah Carter (6-12) Coweta High School | Andrea Wood (K-8) <br> Mid-Del Public Schools | Rachel Bates (6-12) State Regents for Higher Education, Anthony Purcell \& Bridget Minden OSDE |
|  | Leveraging Students' Interests in Justice to Explore Mathematical Concepts and Representations | Engaging Students Through Hands-On Data Collection Activities | Let's Give Them Something to Talk About | Math Pathways Understanding Secondary \& Post-Secondary Opportunities |
| 706 | Brigit Minden (6-12) OSDE | Brigit Minden (6-12) OSDE | x | Tiesa Maltby (6-12) Enid Public Schools |
|  | Understanding Students' Geometric Thinking | Utilizing the Oklahoma Math Curriculum Frameworks in your classroom | x | An Introduction to Delta Math |
| 707 | Anthony Purcell (6-8) OSDE | Anthony Purcell (K-12) OSDE | x | x |
|  | College Career and High School Math Readiness | Acceleration vs. Remediation | x | x |
|  |  |  |  |  |


| Room | Session 1 (9:30-10:20) | Session 2 (10:30-11:20) | Session 3 (1:00-1:50) |
| ---: | :--- | :--- | :--- | :--- |
| $\mathbf{7 0 8}$ | Jessica Tracy (K-12) <br> Mustang North Middle School | Jessica Tracy (K-12) <br> Mustang North Middle School | Katelyn Weese (6-8) <br> Sallisaw PS |
| $\mathbf{7 0 9}$ | Student Tracking | Creating Digital Activities |  |

Program Color Code: K-5, 6-12, K-12


Keynote Speaker - Sarah Carter

Sarah teaches high school math in her hometown of Coweta, OK. She is passionate about teaching math in a creative, hands-on manner and equipping other teachers to do the same.

Carter regularly leads professional development for other teachers and writes a popular blog for math teachers called Math = Love. Through her blog, she shares hundreds of free printable resources with teachers around the world. Carter was named one of NPR's 50 Great Teachers in 2015 and was a 2018 finalist for Oklahoma Teacher of the Year.
https://mathequalslove.net

## Lunch: 11:30-1:00 on your own

Food Truck Available @ Norman High<br>The Meating Place<br>Can bring it inside and sit in the Cafeteria Commons.

Walking Food locations:
Old School Bagel Cafe - 710 West Main Street \#100
Sandro's Pizza and Pasta - 914 West Main Street
Taco Casa-731 West Main Street

Close Food Locations West, towards I-35:
Sooner Dairy Lunch - 1820 West Main Street
Wendy's - 1908 West Main Street
Chick-fil-A - 3351 West Main Street
Subway - 2339 West Main Street
La Baguette Bakery and Cafe - 2100 West Main Street
What-A-Burger - 2424 West Main Street
Arby's - 2490 West Main Street
Panera Bread- 2200 West Main Street
Freddy's Frozen Custard and Steakburger - 2403 West Main \#110
Norman High School Map - Main Building

Close Food Locations East, toward Downtown Norman:
The Earth, Natural Foods - 309 South Flood Ave
Midway Deli \& Market - 601 West Eufaula Street
Sam's Southern Eatery - 408 West Main Street
Tino's Italian Eats and Sweets - 209 West Main Street
The Garage - 307 East Main Street

911 West Main Street


Yellow - classrooms \& theater we are using, Blue - Restrooms

## Full Session Descriptions:



| $\mathbf{7 0 6}$ | Brigit Minden (6-12), OSDE |
| :--- | :--- |
|  | Understanding Students' Geometric Thinking <br> Discover how to encourage geometric thinking in secondary students using OKMath Frameworks and OAS-M. Explore the 5 <br> levels of the Van Hiele Model of Geometric Thinking and how to provide support for students at each level. |
| $\mathbf{7 0 7}$ | Anthony Purcell (6-8), OSDE |
|  | College Career and High School Math Readiness <br> The Oklahoma State Department of Education has worked with the Southern Regional Education Board to create math <br> courses that help students develop a deeper understanding of mathematical concepts to bridge unfinished learning prior to <br> Algebra I and from high school to college. Attend this session to discover how to bring these courses to your school and <br> district. |
| $\mathbf{7 0 8}$ | Jessica Tracy (K-12), Mustang North Middle School |
| $\mathbf{7 1 0}$ | Student Tracking |
|  | Kelly Reddin (K-2), Inspiring Your Creativity LLC |
| Hands-on Brick Math for Addition \& Subtraction |  |
|  | Get a taste of how you can have students comprehending the process of addition and subtraction, transferring hands-on the <br> knowledge to paper and pencil and their brains so they can verbally explain the process as well as determine correct <br> answers. This powerful tool is one more way you can reach students, not one more thing to do. Be amazed at how well <br> students learn the vocabulary and comprehend the concepts. |


| $\mathbf{7 1 1}$ | Mary Brese (6-12), Brink JH Moore PS/TI |
| :---: | :--- |
|  | From Pythagorean to DistanceAfter students learn how Pythagorean Theorem applies to a right triangle, this activity uses the coordinate plane to help <br> them derive the distance formula. Starting with a triangle with the right angle vertex at the origin, students will transition from <br> seeing a right triangle to only using the coordinates of the hypotenuse, to finally developing the distance formula. This <br> directly applies to: PA.GM.1.2 Use the Pythagorean Theorem to find the distance between any two points in a coordinate <br> plane. This is a hands-on activity, which allows participants to see how to present this lesson in the classroom. |
| $\mathbf{7 1 2}$ | Elayne Bowman (K-12), Retired Math Educator |
|  | Reticence to Change in Mathematics Education: Why is Lasting Systemic Change Difficult to Attain?After over 100 years in mathematics education, we continue to return to the same questions that were being asked over a <br> century ago. Lasting systemic change in mathematics education requires stamina, persistence, and an understanding of the <br> complex interconnection between culture, schools, and curriculum. Effective change requires communication and <br> collaboration among all stakeholders. This session will examine trends facing mathematics classroom teachers and <br> encourage discussion for how we might establish lasting systemic change for our profession. |

## Room Session 2 (10:30-11:20)

702 (library) Jill Davis \& Darlinda Cassel (K-12), University of Central Oklahoma, OCTM Journal Editors Writing \& Reviewing for the Oklahoma Journal of School Mathematics

Are you interested in writing for the Oklahoma Journal of School Mathematics but are not sure where to begin? Do you want to get started by reviewing manuscripts? Join us to learn more about the journal and publishing process. We are looking for research and practical articles, as well as book and resource reviews. We will share tips for writing and reviewing as well as answer your questions.


| $\mathbf{7 0 7}$ | Anthony Purcell (K-12), OSDE |
| :--- | :--- |
|  | Acceleration vs. Remediation <br> When students have unfinished learning, there are several different approaches. Remediation focuses on the past and <br> oftentimes is not beneficial for the students. Acceleration practices allow students to continue to learn new material while <br> supplementing missed concepts into their current curriculum. Discover how to make a simple change in your classroom for <br> greater gains in student learning. |
| $\mathbf{7 0 8}$ | Jessica Tracy (K-12), Mustang North Middle School |
| $\mathbf{7 0 9}$ | Creating Digital Activities  <br> How to create a variety of engaging digital resources for your students.  <br>  Belonging Centered Instruction \& Okla Academic Standards <br>  Participants will explore meaningful ways to think about and connect with their students and their backgrounds. They will <br> explore instructional practices that have the potential to disrupt structural and interpersonal inequity, and restore a sense of <br> belonging and worth in the classroom. <br> $\mathbf{7 1 0}$ Kelly Reddin (3-5), Inspiring Your Creativity LLC <br>  Hands-on Brick Math for Multiplication \& Division <br> Have students show you their work and their thought process as they succeed with multiplication and division. They will be <br> using correct vocabulary as they transfer the knowledge from one form to another and make connections between division <br> and subtraction, division and multiplication, and addition and multiplication. You will have a tool that you can use with your <br> regular class as well as with students who need a little more help.  <br>   |

Mary Brese (6-8), Brink JH Moore PS, Texas Instruments
Data Analysis \& Measure of Central Tendencies Using TI-30XS MultiView Scientific Calculator
Starting in 6th grade (6.D.1), moving into 7th grade (7.D.1.1) and continuing in Pre-Algebra (PA.D.1.1 and PA.D.1.2) students learn about single variable data. I will present a fun activity that is interactive for participants (students) and includes using the TI30-XS scientific calculator to understand topics of mean, median, mode and range. The activity shows the importance of 5-Number Summary as it applies to Box \& Whisker Plots and Outliers, including how adding new data or deleting data changes the analysis. If time permits, we will look at how to use the calculator with frequency tables and possibly, scatter plots.

Mallory Dyer (9-12), Derivita, Teanna Russ, Norman PS
Getting to know Derivita: A Weapon for Math Instruction
Derivita provides the flexibility that math teachers need to create student-centered learning experiences with powerful tools that work in Canvas anytime, anywhere, and on any device. In this session, we will walk through how the Norman teachers have used Derivita to create, curate, manage, and deploy activities, assignments, and assessments directly within their Canvas courses. You'll also get a first look at what's new in Derivita including: simplified grading, new assignment settings, multi-modal inputs (including sketching and drawing), and new reporting capabilities for common assessments!

| Room | Session $3 \mathbf{( 1 : 0 0 - 1 : 5 0 )}$ |
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| $\mathbf{7 0 2}$ (library) | Nancy Trent (9-12), Ada High School |
|  | Function Selfie Project |
|  | This project was so engaging that students were caught working on it in other classes. Students used a selfie picture and <br> an online free graphing calculator to create a graph of their face using function transformations and restrictions of domain or <br> range. This session will provide the rubric and setup you can use and modify to fit Algebra 1 through Calculus. Please bring <br> a device to start your own selfie graph. |
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| $\mathbf{7 0 3}$ (library) | Karen Zwanch (6-8), Oklahoma State University |
| :--- | :--- |
|  | Reenvisioning Virtual \& Physical Algebra Tiles for Teaching Integers <br> Teachers will participate in hands-on Algeblocks activities applicable to teaching grades 5-9 integer arithmetic. Discussion <br> and activities will include meanings for integers and inter arithmetic, and strategies for hands-on explorations of the <br> operations that support student student invention of integer arithmetic algorithms. |
| $\mathbf{7 0 4 / 7 0 5}$ |  |
| Double | Andrea Wood (K-8), Mid-Del Public Schools |
|  | Let's Give Them Something to Talk About <br> This session will feature short print and digital routines and activities to get students thinking, discussing, making <br> connections, and building number sense with just the right amount of struggle. Walk away with ideas to implement <br> immediately with little prep time. The strategies are centered on Dr. John Hattie's high impact strategies of discussion, <br> feedback, and spaced vs. mass practice. (Please bring a device) |
| $\mathbf{7 0 8}$ | Katelyn Weese (6-8), Sallisaw PS  <br> $\mathbf{S T E M}$ Career Exposure in Mathematics Curriculum  <br>  STEM Careers and merging their concepts with the math curriculum to encourage interest in those fields. Math Standards <br> Covered: 7.N.2.3, 7.A.2.4, 7.D.1.2, 7.D.2.3, PA.A.4, A1.F.1.1, A1.F.1.3, A1.D.1.1, and more. <br>  Josh Britton (6-12), Get More Math  <br>  Algebra for Everyone: Conceptual Strength Through "Discovery Light" <br>  Too often, students experience Algebra as a series of obscure processes governed by teacher-provided formulas. Let's <br> change this! This session explores ways that students can build meaning through discovery of Algebraic tools and <br> reasoning. <br>   |

710 Holly Wilson (K-5), Britton Elementary IT, Oklahoma City PS

## Dice Games for the math world

In this session participants will learn how to incorporate dice games into the daily learning for their students. They will learn games for partners and groups to help with their math computation skills.

Mary Brese (6-12), Brink JH Moore PS/Texas Instruments

## Solving Equations Using Graphing on a Graphing Calculator

When solving a single variable equation, students learn to solve for the value of the variable. What is missing is the visual understanding, i.e.) What does it mean, and why is there only one solution to an equation? See how students can use the graphing calculator to solve equations and inequalities, also absolute value equations and inequalities. This is a great introduction to Systems of Equations. We will work with concepts that cover 7th grade (7.A.3), Pre-Algebra (PA.A.4) and in Algebra (A1.A. 1 \& A1.A.2).
Both TI-84 and TI-nspire calculators will be available for participants to use.

712
Sherri Abel (6-12) Derivita

## Increasing Discourse and Engagement in the Classroom (5 Practices)

Issues getting students to talk....mathematically? This session will focus on implementing low floor, high ceiling tasks designed to engage all students, as well as, implementing the 5 practices for orchestrating mathematical discussions (Smith \& Stein). You will leave armed to deploy these strategies the very next day. Come prepared to participate!

| Room | Session 4 (2:00-2:50) |
| :---: | :---: |
| 702 (library) | Paul Howard (9-12), Oklahoma Christian University |
|  | Using Open Source Textbook for Precalculus/ Trigonometry Courses |
|  | This presentation addresses using STAX open source textbook for Precalculus and/or Trigonometry courses. STAX open source textbooks are high quality with online versions available at no cost. Printed versions are available from STAX with minimal cost. |
| 703 (library) | David Tompkins (K-12), Eastern New Mexico University \& Sheri Tompkins, New Mexico Military Academy |
|  | The Power of Previews: Students Mastering Difficult Math Skills w/ Ease |
|  | Imagine your students learning the multiplication tables, adding fractions, or graphing equations with ease. What teacher wouldn't give their proverbial left arm for this kind of success? In conjunction with other proven educational strategies, previews offer a level of success that is a step above the plateau we often reach. Through participant engagement, this researched-based presentation focuses on the power of previews and its reciprocal relationship with the mental processes that happen during sleep. It also offers practical and tangible models for implementation, and promotes preparation for next-day implementation. |
| 704/705 Double | Rachel Bates (6-12) State Regents for Higher Education \& Anthony Purcell \& Bridget Minden, OSDE |
|  | Math Pathways Understanding Secondary \& Post-Secondary Opportunities |
|  | OKSDE and OSRHE presenters will provide attendees with relevant information about secondary mathematics opportunities and post-secondary reforms. |
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| $\mathbf{7 0 6}$ | Tiesa Maltby (6-12) Enid Public Schools |
| :--- | :--- |
|  | Introduction to Delta Math |
| $\mathbf{7 0 8}$ | Delta Math is a free online platform providing practice problems for students. The teacher creates the practice assignments <br> in a user-friendly interface. The website also provides an easy-to-use gradebook with additional features. Come see this <br> alternative to traditional worksheets. |
|  | Katelyn Weese (6-12), Sallisaw PS |
| $\mathbf{7 0 9}$ | I will discuss the use of low-tech (and affordable) materials that can serve as manipulatives to enhance any mathematics <br> lesson. I will cover mostly PreAlgebra \& Algebra 1 Standards, but most concepts can be adjusted or built off of to <br> accommodate other grade levels. |
|  | Break the Forgetting Cycle: Long-Term Mastery with Get More Math |
|  | By the end of the school year, students have already forgotten many of their hard-won math concepts. How can we break <br> the forgetting cycle and make it stick? In this session, veteran math teacher Josh Britton will share his proven model for <br> driving long-term retention through use of Get More Math software. |
| $\mathbf{7 1 0}$ | Holly Wilson (K-5), Britton Elementary IT, Oklahoma City PS  <br>  Dice Games for the math world <br>  In this session participants will learn how to incorporate dice games into the daily learning for their students. They will learn <br> games for partners and groups to help with their math computation skills. <br>   |


| $\mathbf{7 1 1}$ | Mary Breese |
| :--- | :--- |
|  | Teaching with eGlass in the Classroom or Virtually |
|  | This session will focus on a new innovative way to teach while you face your students, write,talk, and interact with your <br> students like you have never seen before. Imagine never turning your back to write again! eGlass is an illuminated <br> transparent writing glass that allows you to present lessons to your class in a way that boosts student engagement to <br> unprecedented levels. With a built-in camera that captures your face and writing in the same picture, you can create your <br> own video lessons. Imagine a tool that will help you close the gap. That's eGlass. Join me in this presentation and you can <br> try it for yourself. |
| $\mathbf{7 1 2}$ | Telannia Norfar (K-12), NW Classen High School, Oklahoma City PS |
|  | Building Thinking Classrooms |
|  | Building Thinking Classrooms was a great book study that Norfar implemented in her classroom. Learn how she introduced <br> it and maintained it in her classroom. Also see how students responded to this way of learning. |

## THANKMOU

Thank you to: Keynote speaker Sarah Carter, our Presenters, PAEMST for providing Breakfast, all of our Vendors, OCTM Conference Chair - Julia Prise, OCTM Vender \& T-shirt Chair- Annetta Hackler, OCTM Conference Program Chair - Julie Klingensmith, OCTM Treasurer - Porctia Tinsley and the entire OCTM Board!

2022 OCTM Vendors:

- Brick Math
- Cengage
- CPM
- Curriculum Associates
- Derivita
- Get More Math
- Imagine Math
- Inspiring Your Creativity
- Mu Alpha Theta
- NSU Broken Arrow College of Education
- OERB
- OSU College of Education
- OU College of Engineering
- Presidential Award of Excellence for Math \& Science Teaching
- Southern Regional Education Board
- Texas Instruments
- UCO College of Education

Please update your OCTM Profile on our website www.okctm.org Instruction video Here

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| green.brandi@rocketmail.com | District 10: Oklahoma City PS, 2021 | OsDE -Secondary Math |
|  | Rebecca Decker, OKC PS | Grigit Minden, SDE |

## Certificate of Participation

This is to certify that

Attended the
Oklahoma Council of Teachers of Mathematics, 2022 Summer Conference
Saturday, June 4th, 2022 8:30am - 3:30pm
Norman High School
911 West Main Street
Norman, Oklahoma 73069
国国OCTM
www.okctm.org

OCTM President-Melynee Naegele
OCTM 2022 Conference Chair - Gulia Paise

