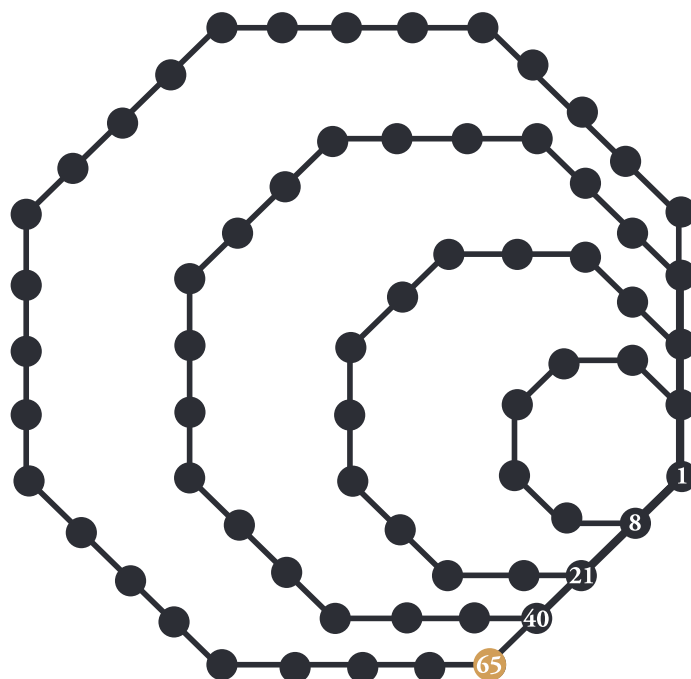


CMC-N Mathematics Conference

ASILOMAR 2022

www.cmc-math.org



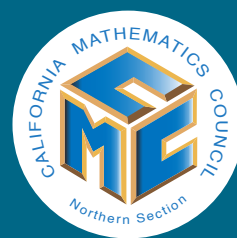
$$3n^2 - 2n, \text{ with } n > 0$$

LEARNING *IN*, MOVING *FORWARD* MATHEMATICS for ALL

2022

65th Annual Conference
December 2–4, 2022

Asilomar Conference Grounds
Pacific Grove, CA



welcome to Asilomar

Take time to explore mathematical ideas and teaching for understanding. Whether you're a first-timer or a veteran of many Asilomar conferences, we hope this brochure will help you find the exciting opportunities that await you at this year's conference!

A Place to Get New Ideas...

Asilomar is a place to get lots of new lessons and ideas to use in your classroom. Attend sessions led by teachers and educators from all levels, and all over California, the United States, and beyond. Experience hands-on workshops and fun-filled activities you will want to share with your colleagues and students. The Asilomar conference provides over 100 sessions in a three-day program that offers a rich variety of experiences to suit every grade level and to cover all strands of mathematics.

A place to learn what is new in mathematics education...

Come to Asilomar to learn about and discuss the latest mathematics education news, information and issues. We are proud to have an outstanding group of presenters—people at the forefront of change in mathematics instruction. Discover how changes in state and national policy, teaching techniques, materials, texts and assessment will affect your classroom, your students and your teaching.

A place to network...

Hundred teachers from all levels attend Asilomar each year. Take this opportunity to enlarge your network of colleagues who can assist you in building your math program. Become part of the CMC network that supports math teachers throughout California. Meet new friends who share your interests and love of teaching.

A wonderful place to be...

Asilomar is a beautiful State Park. You will encounter many species of wildlife as you meander through the grounds or take the boardwalks to the dunes. Join us!



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Evaluate the conference by December 31, 2022 and you will be entered in a drawing for **FREE** conference registration and on grounds housing for next year. **The winner for this year's free registration and housing is Ruth Kroman Gotrin.**



Go to <https://bit.ly/AsilomarConfEval> to enter to win a **free** registration and **free** housing at next year's conference by completing the **Conference Evaluation.**

	Time	Event	Location
Friday	12:30pm	Pre-conference registration and materials pick-up	Surf & Sand
	Pre-Conference 1:30–4:30pm (details on page 3)	Harold Asturias , Focal Students: An Approach to See and Empower All Students	Triton
		Jack Dieckmann , Expanding Language, Expanding Learning: Multilingual Learners in the Changing...	Evergreen
		Kathy Morris , Make Math Real: Maker Projects that Motivate Authentic Math	Oak Shelter
		Christine Roberts , Big Math for Small Learners: Developing Coherence	Acacia
		Pamela Seda , Creating Culturally Relevant Math Tasks: Not as Hard as You Think!	Toyon
	Oswaldo Soto , Using Games and Puzzles to Advance All Students’ Mathematical Thinking	Heather	
3:00–7:00pm	Registration and materials pick up	Surf & Sand	
6:00–7:00pm	Dinner	Dining Hall	
1:30–7:30pm	Exhibits (materials for purchase)	Merrill Hall	
4:00–6:00pm	New to conference	Merrill Hall	
7:30–9:00pm	Keynote Session: (information on page 5) Jo Boaler , The Dreamkeepers: Learning from Teachers Who Promote Equitable Outcomes (Note: When maximum capacity is reached in Chapel, this session will be live streamed in Fred Farr Forum and Kiln.)	Chapel <i>(Live streamed in Fred Farr Forum and Kiln)</i>	
Saturday	7:00–8:15am	Breakfast	Dining Hall
	7:30–9:30am	New to conference	Merrill Hall
	7:30am–12:00pm	Registration and materials pick up	Surf & Sand
	7:30am–4:30pm	Exhibits (materials for purchase)	Merrill Hall
	7:45am	Coffee and tea	Merrill, Chapel, Scripps patio
	8:00am–12:00pm	Sessions (matrix begins on page 10, speaker section begins on page 12)	
	9:00am–5:00pm	CMC Affiliate Hub	Manzanita
	11:00am–3:00pm	Snack Break	Chapel
	12:00pm	Exhibit Drawing	Merrill Hall
	12:00–1:00pm	Lunch (refer to page 8)	Dining Hall
	1:00–5:00pm	Sessions (matrix begins on page 10, speaker section begins on page 12)	
	6:00–7:00pm	Dinner	Dining Hall
	7:00–8:00pm	New Teacher Social	Fred Farr Forum
8:00–10:00pm	President’s Party and Affiliate Social!	Fred Farr Forum	
Sunday	7:30–9:00am	Breakfast (pick-up box lunch)	Dining Hall
	8:00am	Coffee/Tea	Chapel
	8:00–8:45am	CMC-North Membership Meeting	Surf & Sand
	9:00–10:15am	Morning Keynote Session: (information on page 6) Kyndall Brown , Mathematics for All: Staying the Course for Equity in the Face of Adversity	Chapel
	10:15–10:45am	Coffee Break	Chapel
	10:45am–Noon	Mid-morning Keynote Session: (information on page 6) Kevin Dykema , From Math by Memorizing to Math by Understanding	Chapel



Did you know....The conference is entirely run by a small team of volunteers-mostly full time teachers! To get involved, drop by the CMC-North Affiliate hub in Manzanita!



Kick-off Pre-conference

Friday | Asilomar 1:30–4:30

Pre-registration required.

Asturias, Harold

Focal Students: An Approach to See and Empower All Students

Deficit thinking permeates math education. We must empower our students at the margins and design mathematical powerful learning for all students. By focusing on a few focal students we create improvements for them that benefit all students in the classroom. Learn about a network—The California Action Network for Mathematics Excellence and Equity (CANMEE)—of educators who, by selecting focal students, are transforming their instructional designs through careful Lesson Study cycles of inquiry.

GI | PRS | 15 | Triton

Dieckmann, Jack

Expanding Language, Expanding Learning: Multilingual Learners in the Changing California Mathematical Context

English Learner Roadmap and the upcoming California Mathematics Framework position all learners as active sense-makers, having a greater agency in their learning of mathematics. Multilingual learners are called to fully participate in inquiry-oriented learning, open-ended math tasks, heterogenous group work and extended classroom discourse, all opportunities to expand their disciplinary language. Is your school/district set up for success? We will review optimal classroom conditions for language development, research-based teaching practices, and educator tools to evaluate curricula that are supportive of Multilingual learners. This interactive session is for district math leaders, math curriculum specialists and instructional coaches. Ldrshp | PRS | 5 | Evergreen

Morris, Kathy

Make Math Real: Maker Projects that Motivate Authentic Math

Cardboard and tape, pasta and glue, paper and imagination! In this hands-on session you'll experience how an engaging maker project can be used to kick off a sequence of standards-based math lessons that have been designed specifically to support emergent multilingual speakers. Learn how maker projects can create contexts for authentic math inquiries and provide rich language development opportunities. Through our NSF grant Make Math REAL (Realize Equity to Activate Learners, upper elementary teachers are designing and testing eight Maker Learning Cycles. For example, why not use slime or pasta racecars to investigate fractions? Imagine using an art project to motivate angle measurement, or a robot to help students unpack volume. Each of these projects targets important grade-level concepts and skills. At the end of the session you will have the opportunities to request early online access to Maker Learning Cycles that are currently being field tested. When finished, they will all be available for free as open-source curricular materials. 3–5 | PRS | 4 | Oak Shelter

Roberts, Christine — California Math Council

Big Math for Small Learners: Developing Coherence

Build coherence in mathematics from PreK–2 by exploring the brilliance in children's mathematical thinking, how mathematical ideas are connected within and across grade levels, and ways to align and support coherence across school and district systems. Examine student thinking and consider what details of student thinking you want to highlight, what you want to learn next about your students, and ways to plan for instruction that builds on children's mathematical ideas. Engage in conversations about ways to create coherent mathematical experiences for students and plan for next steps in your classroom, at your school, or with your district.

Co-presenter: Stephanie Ahumada PK–2 | PRS | 7 | Acacia | BT

Seda, Pamela — Seda Educational Consulting, LLC

Creating Culturally Relevant Math Tasks: Not as Hard as You Think!

Many math teachers have a desire to use culturally relevant tasks but don't know where to start. Finding culturally relevant tasks starts with understanding your students, finding out what they are interested in, what's important to them, and what they value. In this session, participants will learn how to start this process by making small changes to math tasks and working their way up to tasks that truly engage and empower all their students. 6–8 | PRS | 8 | Toyon

Soto, Osvaldo — UC San Diego Math Project

Using Games and Puzzles to Advance All Students' Mathematical Thinking

Do you want your students to be the generators of their own representations, conjectures, generalizations, and justifications? Come re-experience what it was like to be a student at play by exploring some new games and puzzles. Plan to have some meaningful mathematical and pedagogical conversations. In this mini-session we'll explore some accessible games and puzzles teachers have been using in student-centered middle and high school classrooms to humanize math. Throughout the session, we'll focus on identifying the ways of thinking you can promote with this content. You'll walk away with a fun and interesting learning experience, a new friend, and something exciting to explore with your students. 8–12 | PRS | 5 | Heather



Chapel | 7:30–9:00

(Live streamed in Fred Farr Forum and Kiln)

Jo Boaler, is a Stanford Professor. Former roles have included being a math teacher in London schools. She is author of 18 books, numerous articles and a White House presenter on women and girls. Her latest book is called, *Limitless Mind: Learn, Lead and Live Without Barriers*. She co-founded www.youcubed.org, is currently one of the writing team creating a new Mathematics Framework for the state of California, co-leading a K–12 Data Science Initiative and was named as one of the eight educators “changing the face of education” by the BBC.

The Dreamkeepers: Learning from Teachers Who Promote Equitable Outcomes

Gloria Ladson-Billings was the first person to name teachers who focus on equitable outcomes as dreamkeepers. As a teacher, in London schools, and as a researcher, in the UK and the US, I have always focused on ways that we may help bring about

equitable outcomes in mathematics. I started this endeavor in my own teaching and continued it in my research. In this presentation I will share some of the different teachers I have studied, considering the ways they brought about equitable results. We will watch videos of classrooms, try out some of the tasks the teachers used, and understand the most important actions that bring about high and equitable outcomes. Policy makers argue about frameworks and curriculum but it is teachers who hold children’s futures in their hands – this presentation will be a celebration of these amazing “dreamkeepers.”



The CMC-North Asilomar Conference is at capacity this year and you may find your preferred session is closed.

What to do if your session is full?

Check our our list of suggestions!

- See what you can learn with the Exhibitors in Merrill Hall (pg 30-31)
- Apply for a Mini-Grant in Oak Knoll (pg 34)
- Be early to your next session & refresh yourself with a walk on the beach
- Use the QR codes posted on doors to access speaker’s resources
- Pay it forward and share one of your favorite lessons in Manzanita, the Make-It, Take-It room.

The conference is entirely run by a small team volunteers-mostly full time teachers. Drop by CMC-North Affiliate Hub in Manzanita to get involved.



Chapel | 9:00–10:15

Kyndall Brown has over 35 years of experience in mathematics education. Kyndall holds a bachelor's degree in mathematics, master's degrees in computer-based education and mathematics education, and a Ph.D. in Education. He was a secondary mathematics teacher for 13 years. He has been a professional development provider for schools and districts in Los Angeles County for over 25 years. He is currently the executive director of the California Mathematics Project. He presents at local, state, and national conferences on mathematics education. He writes articles for mathematics education publications. His research focuses on the impact of culture and identity on the ways that African-American males learn mathematics. He is the co-author of the book, *Choosing to See: A Framework for Equity in the Math Classroom*.

Mathematics for All: Staying the Course for Equity in the Face of Adversity



Chapel | 10:45–noon

Kevin Dykema has been an 8th grade math teacher in southwest Michigan for over 25 years and is currently serving as President-Elect for the National Council of Teachers of Mathematics before starting a two year term as President in October 2022. He is the co-author of *Productive Math Struggle*. He also conducts many professional development sessions throughout the United States and loves working with others to help improve mathematics education for each and every student.

Moving from Math by Memorizing to Math by Understanding

We must ensure that each and every student receives a high quality mathematics education that promotes reasoning throughout the grades. Explore how the 8 Standards for Mathematical Practice along with productive struggle can be utilized to help promote this deep reasoning. Engage in tasks and activities to illustrate how to effectively integrate these into the classroom. Examine our role as

leaders in helping teacher implement the necessary changes to better meet the needs of each and every student.

Social Gatherings

CMC-North Affiliates will be having a social gathering! Come find out more about each affiliate in our section and how to stay connected with other math educators in your local area!

Saturday, 8:00–10:00pm | Fred Farr Courtyard

CMC-North Local Affiliate Groups

- Math Council of California's Far North, CMCFN
- Mt Lassen Math Council, MLMC
- Northern Nevada Math Council, NVMC
- Sonoma County Math Council, SCMC
- Sacramento Area Math Educators, SAME
- Math Educators of Solano County, MESC
- San Francisco Math Teachers Association, SFMTA
- Alameda Contra Costa Math Educators, AC3ME
- Santa Clara Valley Math Association, SCVMA
- Monterey Bay Math Council, MBMC



**Join us for
appetizers and
beverages!**

What's a better way to get to know more about local CMC Affiliates than to mingle and network with other people from the affiliate groups?

Name badges must be worn at all times while attending the conference. Badges are required for entry into the sessions and the exhibit hall.

Join us for a **New Teacher Social!**

Co-sponsored by CMC-North and hand2mind. Come to network, catch up, play games, and reenergize. We'll have drinks, snacks, and a drawing.

Saturday, 7:00–8:00pm | Fred Farr Forum

President's Party

Come join us at our President's Party, sponsored by CMC-North

Please come enjoy some appetizers and desserts with a no host bar. Network, meet folks from your affiliate, honor our colleagues receiving awards.

Laugh, dance and relax after a day of learning.

Saturday, 8:10–10:00pm | Fred Farr Forum and Patio

CMC-North Affiliate Hub will be open Saturday, 9:00am–5:00pm in Manzanita. Don't forget to stop by!

Top 10 reasons why you should stop by the Hub!

1. Take a break
2. Find out what CMC can do for you
3. Play some really cool math games
4. Chat with other amazing CMC members
5. Learn about grants to help you teach math
6. Nominate someone special for a CMC award
7. Repeat visitors may come across snacks
8. Take a selfie in front of the CMC wall
9. Pick up some fabulous CMC Swag!
Who doesn't want that?
10. Make connections with your local affiliate!

Zip-up hoodies, long and short sleeve shirts

displaying this year's Asilomar Mathematics conference logo will be available for purchase in Merrill Hall, Friday and Saturday. Don't miss your opportunity to bring home a memento of your conference participation.



CMC-NORTH OFFICERS

President..... Mary Ann Sheridan
President Elect..... Tim Weekes
Vice President Beth Baker
Treasurer..... Dennis Kombe
Secretary..... Alison Nash

CONFERENCE VOLUNTEERS

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Beth Baker

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Beth Baker, Cathy Sinnen, Ali Brewer

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Linda Flood, Rebecca Lewis

Registration
Christopher Hill

Exhibits
Chris Tsuji, Mark Mosheim

NCTM Representatives and Sales
Mary Ann Sheridan

Mini Grant Awards
Linda Flood, Rebecca Lewis

Pre-Service Volunteers
Claudia M Bertolone-Smith, Diana Moss

Asilomar Presiders
Robert Preston

Conference Signs
Julie Stephens, Leah Hoyer

Information Booth
Julie Swenson, Jean Simutis

Equipment Committee
Angelica Trejo-Ortiz, Jinne Webb

Program Logo and T-shirt Design
Linda Gillette-Koyen,
Claudia Bertolone-Smith

Social Media
Sandhya Raman

CMC Affiliate Hub
Joan and Rick Easterday

**First Timers Table and
New Teachers Social**
April Goodman-Orcutt, Sherry Rodgers

CONFERENCE INFORMATION

Sessions

You will find three session types: Presentations, Interactive and Make-It, Take-It sessions.

Presentations (PRS)

Will be speaker-focused, but you may expect discussion, explorations and/or some activity.

Interactive Sessions (INT)

Provide for discussion and exploration. Participants will be involved in activities and interaction with others.

Make-It, Take-It (MITI)

Make your own models for classroom projects and activities. Please join one of our scheduled sessions. Participation is limited to twenty-five. Advanced registration is not required.

Session Capacity/Seating

We have made every attempt to provide adequate seating for participants at the conference. However, to ensure your safety and adhere to fire regulations, the number of participants allowed in each meeting room will be limited to the number of seats approved by the Fire Marshall. Anyone sitting on the floor or standing will be asked to leave the room. Please check the Program Matrix (pages 10–11) for the seating capacity of each room. **All seats are available on a first-come, first-served basis.**

Exhibits

Some speakers have products as an integral part of their presentation. Also see the latest materials and textbooks from other companies.

Friday, Merrill Hall, 1:30–7:30pm

Saturday, Merrill Hall, 7:30am–4:30pm

Parking

Since parking space is very limited, on-grounds parking is reserved for registrants housed on grounds. Others must park outside the main entrance to Asilomar.

Disabled Services

Jitney service and white courtesy phones are available on Asilomar Grounds. Disabled access is available on the Asilomar grounds.

Electronic devices

Out of respect for presenters and other participants, please silence or turn off electronic devices during sessions.

Program Changes

Although this book contains the latest information available as of the printing deadline, some last-minute changes are inevitable. We apologize for any inconvenience that may result, and we appreciate your understanding.

Refreshments

Coffee and tea are available during the conference at Merrill Hall, Fred Farr Forum and Curlew on Friday and Saturday. Water will be in all the rooms on the grounds.

Meal Tickets

Participants staying on-grounds receive a meal ticket with their housing, covering Friday dinner through Sunday lunch.

Zip-up hoodies, long and short sleeve shirts,

displaying this year's Asilomar Mathematics Conference logo will be available for purchase in Merrill Hall, Friday and Saturday. Don't miss your opportunity to bring home a memento of your conference participation.

Help Protect the Vegetation

Please stay on the paved paths that meander through the grounds or the boardwalks that take you on a delightful journey through the dunes. By keeping people off the vegetation, Asilomar is able to preserve the natural landscape for all to enjoy for many years to come. You might see some paths that look like walking trails, but if they are not paved, they are simple animal trails created by many hooves walking the same route through the grounds.

*Thank you very much for
your cooperation.*



Conference Sponsors

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CMC-North | 2022 Mobile App

The CMC-N Conference App can be downloaded from the APP store or the Google Play store. Search for **CA Math Council** or **CMC Conferences**.



The conference app will allow you to use your smart-phone or tablet onsite to easily:

- Access session details and create a personal schedule
- Rate and take notes on sessions
- Access sponsor and exhibitor details
- Receive news alerts
- View map of the exhibit hall layout
- Access social media
- Post tweets via Twitter—@CAMathCouncil #cmcmath

**Download
Conference
app!**

Social Media

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Stay connected with CMC



www.facebook.com/CAMathCouncil



[@CAMathCouncil](https://twitter.com/CAMathCouncil)

#hashtag CMC MATH

Nominate!

If you know a great math teacher, go to the PAEMST portal to nominate a 7th-12th grade teacher of mathematics or computer science for the 2023 award. To nominate a teacher or to download an application visit www.paemst.org. The nomination period is open until January 9, 2023. The application must be completed by February 6, 2023.

Conference & Speaker | Evaluations



Go to <https://bit.ly/AsilomarConfEval> to enter to win a **free** registration and **free** housing at next year's conference by completing the **Conference Evaluation**.

Your feedback is important to us! Please take a moment to complete the **Speaker** evaluation at <http://bit.ly/AsilomarSpeakerEval>



My Session is Full

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Facility	8:00–9:00	9:20–10:20	10:40–12:00	1:00–2:00	2:20–3:20	3:40–5:00	
CHAPEL	Chapel Seats 250 Dan Meyer Math Is Power Not Punishment 6–12 GI 100 ACCEQ	Dan Meyer Math Without Mistakes GI PRS 200 ACCEQ	Cathy Williams Making Connections Through the Big Ideas of the CA Math Framework 8–12 PRS 300	Ivan Cheng How to Entice All Students to Engage in Learning Mathematics 9–12 INT 400 ACCEQ	Patrick Callahan Building Better Assessments Through Student Voice GI PRS 500 BT ACCEQ	Peg Cagle Reimagining and Rehumanizing Math Assessment: Do No Harm 8–12 INT 600 BT ACCEQ	
	Hearth Seats 30 Kristen Acosta Hanging Math Out to Dry: Clotheslines that Build Number Sense GI INT 120 BT ACCEQ	Suzanne Damm The Framework and Fractions 3–5 PRS 220	Robert Vriesman Teaching Mathematics: An Intuitive Approach 8–12 INT 320 BT ACCEQ	Julie McNamara Developing Algebra Sense 3–5 INT 420 BT ACCEQ	Debbie Leslie Developing Early Number Sense PK–2 INT 520 BT ACCEQ	Masha Albrecht Assessing Student Understanding Through Projects 8–12 INT 620 BT ACCEQ	
	Afterglow Seats 30 Krystal Jones Carter Engineering a Miniature Golf Course 6–8 INT 121 BT SOCIAL	Mark Goldstein Turning Middle School Algebra Upside Down 6–8 INT 221 BT	Morgan Agnew P Before You Have T–test: P-values from Hands-on Simulations 8–12 INT 321 BT	Patty Morrison Using Literature in the Math Classroom PK–2 PRS 421 BT ACCEQ	Rob Nickerson Persevere: It's Not Just for Mathematics! 3–5 INT 521 BT	Ramsey Merritt Making Inquiry-based Math Instruction Work for Every Student 3–5 INT 621 BT ACCEQ	
FIRESIDE	Embers Seats 30 Natalie DeRosa Jedi Mind Tricking All Students to Engage in Math Tasks 8–12 PRS 122 BT GAMES	Joanne Rossi Becker Content Connections and the Drivers of Investigation 8–12 INT 222 BT SOCIAL	Mary Raygoza Social Justice Math: Beginning with Beloved Community 6–8 INT 322 BT SOCIAL	Abigail Bates Building Thinking Classrooms: Beginning the Journey 8–12 INT 422 BT ACCEQ	Shelly Baumann Games and Activities for Numerical Fluency 6–8 INT 522 BT GAMES	Leim Tran-Zwijzen An Approach to Equitable Grading in Math Courses 6–8 PRS 622	
	Fred Farr Seats 170 Sandhya Raman Social Justice + Mathematical Modeling = Meaningful Learning 6–8 PRS 101 BT SOCIAL	Julia Cook The "R" in CRL GI INT 201 BT ACCEQ	Annie Fetter The Power of Students' Ideas 3–5 INT 301 BT ACCEQ	Shelley Kriegler Reimagine Problem Solving with Diverse Populations 6–8 INT 401 BT ACCEQ	Stephen Ruby Engaging Warm ups Through Puzzles and Games 8–12 INT 501 BT GAMES	Sean Nank You Have to Choose: Removing Barriers via Reflective Stories GI INT 601 BT ACCEQ	
	Kiln Seats 54 Jamica Craig Rethinking Tier 1 intervention 6–8 PRS 103 BT ACCEQ	Joe Condon Data/Graph Talks and Social Justice 6–8 INT 203 BT SOCIAL	Kim Sutton Number Sense Games to Dazzle Learners! PK–2 INT 303 BT GAMES	Erica Heinzman Exploring the Benefits of Non-traditional HS Math Courses 8–12 PRS 403 BT ACCEQ	Robert London A Curriculum of Nonroutine Problems: Meaningful Mathematics 8–12 INT 503 BT ACCEQ	Kim Sutton Need Ideas for Improving Math Working Memory? 3–5 INT 603 BT GAMES	
	Oak Shelter Seats 32 Patty Low Voice and Choice: Tell Me How You Know That! 6–8 INT 104 BT ACCEQ	Patty Low Solving the Fractions Problem: From Research to Classroom 3–5 PRS 204 BT ACCEQ	Christine Roberts Exploring Children's Mathematical Thinking PK–2 INT 304 BT ACCEQ	Ned Diamond Low Floor, High Ceiling Activities to Engage All Learners 6–8 INT 404 BT GAMES	Theodore Sagun Leveraging Routines to Broaden Participation 6–8 INT 504 BT ACCEQ	Courtney Ortega Who's Learning During Learning Walks? Ldrshp INT 604	
	Evergreen Seats 32 Eric Muller Seeing Math Around You: Geometry, Data and Your Vision GI INT 105 BT ACCEQ	Chris Anspach Grading as a Tool for Equity 8–12 PRS 205 BT ACCEQ	Hilda Wright Math Talks: Using Visuals to Build Confident Mathematicians PK–2 INT 305 BT ACCEQ	Meagan Thompson Connecting Big Ideas into a Web of Mathematical Design 6–8 INT 405 BT ACCEQ	Jamie Phillips Maximize Your Math Block PK–2 INT 505 BT ACCEQ	Brigitte Lahme Agency and Identity Through Early Mathematical Modeling PK–2 INT 605 BT ACCEQ	
	NORTH WOODS (more on page 11)	Heather Seats 60 Tracy Sola K–2 Card Sort Power: Collaborative Mathematics for All PK–2 INT 102 ACCEQ	Paula Merrigan Keeping Math Engaging and Fun in TK and K with Math Centers PK–2 INT 202 BT GAMES	Grace Kelemanik Annotation: A Powerful Tool to Make Math Thinking Visible 6–8 INT 302 BT ACCEQ	Harold Asturias Counting Our Way to Number Sense PK–2 PRS 402	Claudia Bertolone-Smith Creating Connections: Bringing Back Our Favorite Math Games! 3–5 INT 502 BT GAMES	Amy Lucenta A Strengths-based Approach to Develop Mathematical Thinking GI INT 602 BT ACCEQ
		Scripps Seats 50 Ramsey Merritt Turning the Tide on Math at Your Elementary School Ldrshp PRS 106 COACH	Melissa Millerick The Rule of 4: One Method to Rule Them All 8–12 INT 206 BT ACCEQ	Mardi Gale Purposeful Questioning = Access, Ownership, Understanding GI PRS 306 BT ACCEQ	Agnes Tuska Multiplication Without the Multiplication Table? Yes! Ldrshp INT 406 BT ACCEQ	Dave Chun SAMRizing Math Tasks GI INT 506 BT ACCEQ	Gail Burrill Developing Understanding in Middle Grades Math 6–8 INT 606 ACCEQ
		Acacia Seats 25 Jun Li Math Milestones K–2: The Math of Your Grade on a Single Page PK–2 INT 107 BT ACCEQ	Sharon Rendon How Might We Rethink Intervention? 6–8 INT 207 BT ACCEQ	Laurie Boswell Tasks that Trigger Thoughtful Talk 3–5 INT 307 BT	Kurt Salisbury Telling a Math Story Using Desmos GI INT 407 BT ACCEQ	Jun Li Math Milestones 3–5: The Math of Your Grade on a Single Page 3–5 INT 507 BT ACCEQ	Helen Chan \$The Price is Right\$: Exploring Decimal Multiplication 3–5 INT 607 BT ACCEQ
		Toyon Seats 24 Rob Nickerson Be Clear: Precise Language for Addition and Subtraction PK–2 INT 108 BT ACCEQ	Jason Ahmadi Castle Smash! Making Review Fun! 8–12 INT 208 BT GAMES	Rachel Restani Using Student Explanations as a Tool to Understand Fractions 3–5 INT 308 BT ACCEQ	Suzanne Damm Place Value: The Key to Elementary Mathematics PK–2 INT 408 BT ACCEQ	Jessica Reyes Reimagining Fluency Through Powerful Routines 6–8 INT 508 BT ACCEQ	Judy Kysh Designing Culturally Responsive yet Rigorous Assessment 8–12 PRS 608 BT



Facility	8:00–9:00	9:20–10:20	10:40–12:00	1:00–2:00	2:20–3:20	3:40–5:00	
VIEW CRESCENT	Marlin Seats 34 Richard Sgroi Fortifying the First Five: Do Nows Done Better! 8–12 INT 109 BT ACCEQ	Martha Byrne Community Building and Curve Sketching 8–12 INT 209 BT ACCEQ	Amanda Shelley Shifting Mindsets from Remediation to Accelerating Learning Tchr Ed PRS 309 BT ACCEQ	Isabel Garcia Transcend Awareness of Social Justice: Take Action! GI INT 409 BT SOCIAL	Zenaida Gallardo The Joy of Counting and Exploring: Connecting Literacy and Math PK–2 INT 509 BT ACCEQ	Susan Hoffmier Differentiate the Questions: NOT the Task 6–8 INT 609 ACCEQ	
	Curlew Seats 34 Tammy Baumann I'm All Ears: Listening to Understand Student Thinking 6–8 INT 110 BT ACCEQ	Lybroan James Math is Emotional: Creating Equity Through SEL and Rigor 6–8 PRS 210 BT ACCEQ	Martin Joyce Launching Units with Inviting Anchor Lessons 6–8 INT 310 BT ACCEQ	Emiliano Gomez MDTP Diagnostics to Inform Instruction 6–8 PRS 410 BT ACCEQ	Michael Stern Rainbow Logic 3–5 INT 510 BT ACCEQ	Kathleen Jalalpour The Power of Silence: Teaching More by Talking Less PK–2 INT 610 BT ACCEQ	
	Sanderling Seats 34 Mary Macfarlane Just the Facts: Helping Students Develop x/+ Fact Fluency 3–5 PRS 111 BT	Ruth Smith Equity for ALL = Math x Cultivating Safety2 3–5 INT 211 BT ACCEQ	Sean Nank 10 Strategies to Foster Equitable Interactions and Belonging GI INT 311 BT ACCEQ	Guillermo Lopez Supporting English Learners in Mathematics 3–5 INT 411 BT ACCEQ	Janet Pittock Success is in the Numbers: Building Fact Fluency 3–5 INT 511 BT GAMES	Joshua Bean Enhancing Student Agency by Healing Math Trauma GI INT 611 BT	
DOLPHIN	Dolphin Seats 34 Rebecca Pariso Using Desmos to Support a Universal Design for Learning GI PRS 112 BT ACCEQ	Solana Ray Beautiful Mathematical Explanations in the Primary Classroom PK–2 INT 212 BT ACCEQ	Noam Szoke Math Content Connections: Powerful Progressions Activities GI INT 312 BT ACCEQ	Laurie Boswell For the Love of Geometry! 8–12 INT 412 BT	Diana Moss Revisiting How to Teach Using Algebra Tiles 6–8 MITI 512 BT MITI	Tracy Sola Talk Data to Me: Data Talks for Connection and Empowerment 6–12 INT 612	
	SEA GALAXY	Triton Seats 24 Hilda Wright Non-curricular Tasks for the Thinker 6–8 INT 115 BT ACCEQ	Debbie Leslie Rigor and Play in PreK, TK, and Kindergarten Mathematics PK–2 PRS 215 BT ACCEQ	Gail Standiford Algebra Tiles: A Great Way to Build Conceptual Understanding 6–8 INT 315 BT ACCEQ	Kathy Kuno Green, Lead, Red: An Alternative to Timed Tests 3–5 PRS 415 BT ACCEQ	Jim Franklin Number Line to 10,000,000 and Other Math Manipulatives 3–5 INT 515 BT	Jenny Cheng Investigating Big Ideas Through Student Thinking 6–8 INT 615 BT ACCEQ
Nautilus E Seats 25 Michelle Lau Pathway for Counselors Towards Equitable Math Instruction 8–12 INT 116 BT ACCEQ		Steven Abell DragginMath: Algebra from a Different Angle GI PRS 216 BT ACCEQ	Elaina Ramer Statistics for All: Socially Relevant Lessons 8–12 INT 316 BT SOCIAL	Carlton Grizzle No Problem at All! Problem-based Learning for All GI INT 416 BT ACCEQ	John Kleinjans A Different Approach to Right Triangle Trigonometry 8–12 PRS 516 BT	Montse Cordero YouCubed: Explorations in Data Science: Maths For All 8–12 INT 616 BT ACCEQ	
Nautilus W Seats 40 Haiwen Chu Supporting English Learners in Math Grades 9–12 8–12 INT 117 BT ACCEQ		Susan Hoffmier Building Procedural Fluency from Conceptual Understanding 6–8 INT 217 BT ACCEQ	Barbara Novelli Using Games to Teach and Assess in the Primary Classroom Ldrshp INT 317 BT GAMES	Michael Stern Using Puzzles to Teach Problem Solving 6–8 INT 417	Steven Abell Syntax as a Tool for Thought GI PRS 517 BT	Diana Moss Practices for Promoting a Healthy Mathematics Identity Tchr Ed INT 617 BT SOCIAL	
NORTH WOODS (more on page 10)	Oak Knoll Seats 12 Grant Writing Clinic Session 130 Come by and get help writing a mini grant for math supplies in your classroom.						
	Manzanita Seats 12 CMC Affiliate Hub Session 132 Drop by for activities, learn how to network locally.						
	Willow Inn Seats 12 Make-It, Take-It Drop in Session 131 Give one get one—bring an idea to share.						

How to Read the Matrix

The matrix also reflects site, room, day and time of session. Refer to the alpha section for more information about each session. Site map on back of program.

speaker — **Alicia Alberts**

title of presentation — Teaching Math Concepts

target audience: 3–8 | INT | 748 | BT — BT: interest to beginning and new teachers

GI: general interest

K–C: grade level

Ldrshp: Teacher Leaders

TchrEd: Teacher Education

session number — **STRAND** — strands focused on special interest (see page 23 for more information)

session type (see page 8 for more information)

Name badges must be worn at all times while attending the conference. Badges are required for entry into the sessions and the exhibit hall.

Abell

Abell, Steven — brising.com

• **Syntax as a Tool for Thought**

Traditional math notation took centuries to develop by accident. But the years 1950–1980 produced an explosion of deliberately different and useful ways to think about and write arithmetic. Through simple examples, see how distinctive syntax can enable distinctive paradigms of thought, with immediate utility for teachers and students at all levels.

GI | PRS | 517 | Saturday, 2:20–3:20 | Nautilus West | BT

• **DragginMath: Algebra from a Different Angle**

In an equation, how are those symbols related to each other? And what can you do with those relationships? This virtual manipulative app shows the answer to the first question unambiguously, and lets the student discover answers to the second. See how operator precedence really works, then use algebraic structures to drag equations toward solutions. Fun, but not a toy. Target: before Pre-Algebra to beyond Algebra 2.

GI | PRS | 216 | Saturday, 9:20–10:20 | Nautilus East | BT

Acosta, Kristen — KristenAcosta.com

Hanging Math Out to Dry: Clotheslines that Build Number Sense

Do you know that number line appears in the standards more than 26 times? This workshop is designed to explore how the clothesline (an open number line) creates the opportunity for all students to engage in discourse that promotes the development of number sense. Participants will investigate how this tool is utilized in grades K–6.

GI | INT | 120 | Saturday, 8:00–9:00 | Hearth | BT

Agnew, Morgan — Terra Linda HS

P Before You Have T-test: P-values from Hands-on Simulations

Statistics students often have a difficult time grasping the concept of p-values, especially when they come from a t-test, formula, or one-click virtual simulation. But after students have the experience of repeatedly shuffling cards or randomizing a spreadsheet they are better able to understand what a p-value means. Participants will practice simulations they can share with students to compare numerical and categorical variables and derive p-values that students find meaningful.

8–12 | INT | 321 | Saturday, 10:40–12:00 | Afterglow | BT

Asturias

Ahmadi, Jason — Marina HS

Castle Smash! Making Review Fun!

“Castle Smash” is a friendly competition between scholars to practice content before an assessment. In a teaching cycle of discovery/instruction/review/assessment, Castle Smash is a great way to review content and procedures that scholars have already been working on before a formal assessment. The rules start simple, but can be complicated throughout the year, often at the suggestions of scholars for added engagement. Can be adapted to any level middle school or high school.

8–12 | INT | 208 | Saturday, 9:20–10:20 | Toyon | BT

Albrecht, Masha — Berkeley HS

Assessing Student Understanding Through Projects

How do you know what your students understand about mathematics? The presenter will share her struggles and successes assessing the learning of multilingual students. Attendees will work and view projects on topics including: graphing inequalities, modeling linear functions, using the Pythagorean Theorem, understanding rigid transformations, working with variables, and more. Attendees will receive project descriptions and rubrics, and view examples of student work.

8–12 | INT | 620 | Saturday, 3:40–5:00 | Hearth | BT

Anspach, Chris — Sonoma Valley Unified SD

Grading as a Tool for Equity

All of our students enter into our classrooms at different levels. This session will examine the ways in which we can integrate various and powerful tools help our students develop their understanding over time. Grading and teaching for equity is concerned with teaching and challenging those at the extremes and not being content with teaching the middle.

8–12 | PRS | 205 | Saturday, 9:20–10:20 | Evergreen | BT

Asturias, Harold

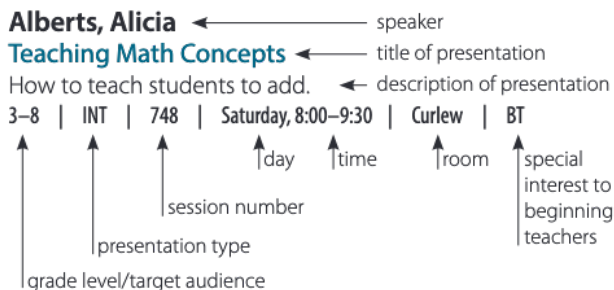
Counting Our Way to Number Sense (Framework Focus)

Counting Collections is a learner-centered activity that supports students in making sense of quantity and the number system while counting collections of objects. We will share video and student work samples of TK–2nd grade students focusing on how teachers use questioning strategies to help students voice their sense making and understanding of mathematical ideas. Counting Collection is a straight forward practice and aligns with the expectations in the upcoming Math Framework, so it enhances any curriculum.

PK–2 | PRS | 402 | Saturday, 1:00–2:00 | Heather

Co-presenter: Kim Bambao

How To Read The Speaker List



Stop by the **CMC Affiliate Hub** at Manzanita, Saturday, between 9:00–5:00 and **pick up your swag**.

Although this book contains the latest information available as of the printing deadline, some last-minute **program changes** are inevitable. We apologize for any inconvenience that may result, and we appreciate your understanding.

Bates, Abigail — Lodi Unified SD**Building Thinking Classrooms: Beginning the Journey**

Have you wanted to increase your students' ability to problem solve and collaborate? In this session, participants will hear from two teachers who have begun shifting their practice to increase student thinking and engagement, based on the research of Peter Liljedahl. We will explore a task together, using vertical whiteboards and visibly random groups, then debrief the impact these changes have in supporting our students in seeing themselves as capable mathematicians.

8–12 | INT | 422 | Saturday, 1:00–2:00 | Embers | BT

Co-presenter: *Eric Vallecillo*

Baumann, Shelly — Big Ideas Learning**Games and Activities for Numerical Fluency**

A fast-paced, highly-motivating workshop designed to help teachers engage all students in the classroom experience. Games and numerical activities allow students an opportunity to build problem-solving strategies, discuss their mathematical thinking, and to build on the ideas and strategies of other players. Providing students opportunities to “play” games encourages student engagement and allows them to take ownership of their learning.

6–8 | INT | 522 | Saturday, 2:20–3:20 | Embers | BT

Baumann, Tammy — NWEA**I'm All Ears: Listening to Understand Student Thinking**

By presenting a single task to students and leveraging it to elicit student conversations using clustered questioning, teachers can better understand how their students are currently thinking about key ideas in mathematics. Participants learn how to guide instruction by using a progressive questioning strategy to elicit evidence of students' ways of thinking about a topic or concept.

6–8 | INT | 110 | Saturday, 8:00–9:00 | Curlew | BT

Co-presenter: *Ted Coe*

Bean, Joshua — Huntington Beach Unified HSD**Enhancing Student Agency by Healing Math Trauma**

Math trauma can be so powerful that no matter what excellent pedagogy or practices teachers employ, nothing is able to overcome the demotivating effects of this trauma. As teachers we must find ways to identify the causes of this trauma in our students, help them to understand what they are experiencing and its effects, and lead them through a process that heals them of this trauma. We will explore specific techniques for identifying and healing math trauma as a way to increase student agency.

GI | INT | 611 | Saturday, 3:40–5:00 | Sanderling | BT

Bertolone-Smith, Claudia — California State Univ., Chico**Creating Connections: Bringing Back Our Favorite Math Games!**

COVID school closures impacted our students in many ways—and needing time to make connections with others and close the math gap are two of the most essential! Join us in this session where we bring back some of our favorite face-to-face math games! The games we will share are specifically chosen to help students lean into learning while making social connections in the process. Games will cover a wide variety of math topics in grades 3–5. Game on!

3–5 | INT | 502 | Saturday, 2:20–3:20 | Heather | BT

Co-presenter: *Dr. Diana Moss*

Boswell, Laurie — Big Ideas Math**• Tasks that Trigger Thoughtful Talk**

Many of the attributes of polygons: side length, angle measure, symmetry, perimeter, and area, can be explored using paper folding, perimeter pieces, square tiles, and grid paper. We'll work through a series of tasks that help students make sense of these attributes. Tasks are designed to have entry levels for all students.

3–5 | INT | 307 | Saturday, 10:40–12:00 | Acacia | BT

• For the Love of Geometry!

A good math problem should be interesting, have different entry points and solutions strategies, allow for extensions, and connect to important mathematics. In this session I'll share a collection of good problems that will remind you of why you love geometry. If geometry is not your first love, you will still love the problems!

8–12 | INT | 412 | Saturday, 1:00–2:00 | Dolphin | BT

Burns, Sarah — UChicago STEM Education**Research-based Approaches to Coaching for Equity**

We will consider what research says about giving all children access to high-quality math content and instruction and how to operationalize these findings through instructional materials, classroom observation and debriefing processes, etc. Participants will discuss how these findings and applications are consistent (or not) with common differentiation practices such as personalized learning, grouping structures, leveled assignments, choice menus, open-ended tasks, and design tasks.

Ldrshp | INT | 206 | Saturday, 9:20–10:20 | Scripps Conference

Co-presenter: *Debbie Leslie*

Burrill, Gail — Michigan State Univ.**Developing Understanding in Middle Grades Mathematics**

Too often students can “do” in the moment but later cannot recall the process. Helping students develop robust concept images and engaging them in motivating and cognitively challenging activities can facilitate flexible procedural knowledge and understanding of core ideas such as ratio or linear equations. Providing choice in the ways students work on problems and honoring their solutions gives them confidence and agency in their view of themselves as doers of mathematics.

6–8 | INT | 606 | Saturday, 3:40–5:00 | Scripps | BT

Byrne, Martha — Sonoma State Univ.**Community Building and Curve Sketching**

Curve sketching involves the synthesis of many concepts from derivative calculus; however, typical curve sketching problems are approached procedurally, which make them difficult to do in the collaborative settings that support access and equity in participation. Here, we will engage in a collaborative curve sketching task that fosters community. The principles behind this task can also be applied to other courses and content areas, and participants will workshop adaptations of the task.

8–12 | INT | 209 | Saturday, 9:20–10:20 | Marlin | BT



tea and coffee

Available during the conference at
Merrill Hall, Fred Farr and Scripps
on Friday and Saturday.

Cagle, Peg — Reseda HS, Los Angeles Unified SD
Reimagining and Rehumanizing Math Assess.: First Do No Harm

Teaching math entails numerous parts from addressing unfinished learning, implementing tasks, inviting engagement, to giving feedback. Our focus on assessment will include philosophical and technical aspects of gaining insight into student sensemaking, effective feedback, implications for grading, and unintended but real role of assessment in seeding/exacerbating math phobia. We will workshop effective opportunities to gather robust evidence of students' growth as learners, doers and lovers of math.

8–12 | INT | 600 | Saturday, 3:40–5:00 | Chapel | BT

Callahan, Patrick — Callahan Consulting
Building Better Assessments Through Student Voice

Multiple or “forced” choice tests are far too common. We want to validate and celebrate students' voices by giving them opportunities to explain their reasoning and ways of thinking. We'll share ideas and examples of how to build assessments that (1) increase rigor by eliciting students' explanations (2) promote an asset-based view of students (3) create high-quality evidence of what students really understand (4) better inform instruction and (5) avoid perpetuating systemic biases.

GI | PRS | 500 | Saturday, 2:20–3:20 | Chapel | BT

Chan, Helen — California State Univ., Los Angeles
\$The Price is Right\$: Exploring Decimal Multiplication

Come on down! You're the next contestant on The Price is Right! We will launch into decimal multiplication by playing the Grocery Game from the popular TV game show and explore 5.NBT.7 with the Concrete-Representational-Abstract pedagogical strategy.

3–5 | INT | 607 | Saturday, 3:40–5:00 | Acacia | BT

Cheng, Ivan
How to Entice All Students to Engage in Learning Mathematics

The pandemic has shown us that engaging students is more important than ever. In this session, you will experience activities that you can take back to your classrooms based on the 3 “Cs”: Curiosity, Cultural Connections, and Concern for a Cause. Our easy-to-use strategies and useful examples will help promote equity and access for all students as they develop agency and ownership in learning key concepts and skills (and maybe even have some fun as well when learning math).

9–12 | INT | 400 | Saturday, 1:00–2:00 | Chapel

Cheng, Jenny — Silicon Valley Mathematics Initiative
Investigating Big Ideas Through Student Thinking

Let's connect divergent student thinking and strategically converge them into more meaningful learning that is designed by and for students! By organizing content and practice standards into “big ideas” through the use of low floor high ceiling tasks, we will design intentional instructional moves to center “big ideas” to lean into more meaningful mathematical success for all.

6–8 | INT | 615 | Saturday, 3:40–5:00 | Triton | BT

Chu, Haiwen — WestEd
Supporting English Learners in Mathematics Grades 9–12

How can teachers plan for instruction that maximizes students' success in secondary classrooms? Teachers will learn how to plan for rigorous (high challenge) grade level tasks, while embedding instructional scaffolds (high support) in mathematics. This session focuses on deepening an understanding of the components of high-quality instruction in mathematics that provides English learners students with opportunities to develop mathematical conceptual knowledge and English simultaneously.

8–12 | INT | 117 | Saturday, 8:00–9:00 | Nautilus West | BT

Chun, Dave — Sacramento COE
SAMRizing Math Tasks

In this session, teachers and educators will experience SAMRizing a task. SAMRizing is the process of using the Substitution, Augmentation, Modification, and Redefinition (SAMR) model to infuse technology into math tasks with the goal of enhancing student learning of math. This session has been influenced by the California Digital Learning Integration and Standards Guidance that was developed to support schools in the effective implementation of technology in ELA, ELD, and Mathematics.

GI | INT | 506 | Saturday, 2:20–3:20 | Scripps | BT

Co-presenter: Van Lay, Chelsea McClellan

Condon, Joe — Lipman MS
Data/Graph Talks and Social Justice

Participants will experience multiple Data Talks (Graph Talks) given in a math/number talk format. We will discuss how these types of routines give access to all students. We will focus specifically on data that highlights inequities in our society based on income, gender, race and age. Teachers of STEM topics as well as the Humanities can deliver these as weekly routines to assist students in learning the language of data.

6–8 | INT | 203 | Saturday, 9:20–10:20 | Kiln | BT

Cook, Julia — Savvas Learning Company
The “R” in CRL

A critical aspect of Culturally Responsive Learning is selecting tasks that invite students to author and share their own ideas for teachers to respond to. Join us to experience how 3-Act Math promotes student agency and authorship of mathematical ideas where teachers actively respond to drive instruction. You'll experience how students are fully engaged in and experience the full modeling cycle that the Standards for Mathematical Practice call for.

GI | INT | 201 | Saturday, 9:20–10:20 | Fred Farr Forum | BT

Cordero, Montse — Stanford Univ.
YouCubed: Explorations in Data Science: Maths For All

Data science is becoming a new force in high school classrooms and it promises to expand the horizons of what it means to do mathematics and who gets to do it. Youcubed's new curriculum brings an engaging, project-based, critical approach to this new subject. This will be an interactive workshop where teachers dive into data science content through meaningful activities. This content can be used in a year-long data science course or be integrated into other courses in math and beyond.

8–12 | INT | 616 | Saturday, 3:40–5:00 | Nautilus East | BT

Co-presenter: Estelle Woodbury, Kristina Dance

#Hashtag **CMCMATH**



Craig, Jamica — Zearn Rethinking Tier 1 Intervention

How can we address unfinished learning while still moving students forward in new grade-level learning? This session will explore how real-world context and visual representations help students make connections to the big math ideas that structure math learning, allowing them to build deep understanding of prior concepts while learning new content.

6–8 | PRS | 103 | Saturday, 8:00–9:00 | Kiln | BT

Damm, Suzanne

• The Framework and Fractions

To develop fraction concepts, students can use concrete materials to build a number, and then see the connections between the concrete model and the representational, and abstract approaches. We will explore fractions using pattern blocks, rectangular area models, bar models and number lines.

3–5 | PRS | 220 | Saturday, 9:20–10:20 | Hearth

• Place Value: The Key to Elementary Mathematics

In this session you will explore ways to help students conceptually understand place value from counting to multi-digit whole numbers with grouping being the big idea. We will use the common core progressions to help with sequencing and instructional strategies.

PK–2 | INT | 408 | Saturday, 1:00–2:00 | Toyon | BT

DeRosa, Natalie — San Jose Unified SD

Jedi Mind Tricking All Students to Engage in Math Tasks

Are you looking for innovative ways for students to practice math skills that don't involve worksheets? This session will share more than 25 ideas to "trick" your students into thinking math is fun and increase student buy in. These ideas include structured math activities that foster student discourse and accountability, unique projects, attention grabbers and intentional wording/ tone. The content presented is from Algebra 1 and 2 and Precalculus however it can be applied to any course.

8–12 | PRS | 122 | Saturday, 8:00–9:00 | Embers | BT

Diamond, Ned — Crystal Springs Uplands School Low Floor, High Ceiling Activities to Engage All Learners

These three low floor, high ceiling activities will grab the attention of all your learners and then you can stretch your students as far as you want. You will experience the activities first as a student and then learn the teacher moves to engage all learners. You will leave with lesson plans ready to plug and play where you see fit. Problem solving, probability, and multiples are emphasized.

6–8 | INT | 404 | Saturday, 1:00–2:00 | Oak Shelter | BT

If you know a great math teacher, go to the PAEMST portal to nominate a 7th-12th grade teacher of mathematics or computer science for the 2023 award. To nominate a teacher or to download an application visit www.paemst.org. The nomination period is open until January 9, 2023. The application must be completed by February 6, 2023.

Fetter, Annie — 21st Century Partnership for STEM Education The Power of Students' Ideas

Do all of your students believe that they have important mathematical ideas? Do they believe that mathematics makes sense and is about more than answers? We'll explore routines and strategies for eliciting, valuing, and leveraging students' ideas and discuss why being curious about students' ideas is your most important job.

3–5 | INT | 301 | Saturday, 10:40–12:00 | Fred Farr Forum | BT

Franklin, Jim — Slide-A-Round Math Manipulatives, LLC Number Line to 10,000,000 and Other Math Manipulatives

Join us for a hands-on demonstration by Jim Franklin, teacher of special education from Rome, GA, who invented a number line to help students round numbers up to 10,000,000. View a variety of math manipulatives and learn differentiation strategies and tips that address the standards of fractions, decimals, money, elapsed time, capacity, and weight. Low vision and braille manipulatives will also be on display. Articles and demonstration videos are available at www.slidearoundmath.com.

3–5 | INT | 515 | Saturday, 2:20–3:20 | Triton | BT

Gale, Mardi — WestEd

Purposeful Questioning = Access, Ownership, Understanding

Are you asking questions that focus or funnel student thinking? What questions reflect the magic of mathematics and address equity? Increase understanding, maintain rigor, build ownership through purposeful questioning; called for by Principles to Actions. Purposeful questioning also guides productive struggle and gives all students the opportunity to think, communicate, and immerse themselves in the content. Practice focusing questions and tweak funneling questions to support students

GI | PRS | 306 | Saturday, 10:40–12:00 | Scripps | BT

Gallardo, Zenaida — Kern COE

The Joy of Counting and Exploring: Connecting Literacy and Math

Have you thought about connecting literature and math? Let's mathematize read alouds! We will explore how to spark students' joy for counting, self-discovery of strategies, and representing their thinking in multiple ways.

PK–2 | INT | 509 | Saturday, 2:20–3:20 | Marlin | BT

Co-presenter: *Claudia Maldonado*

Garcia, Isabel

Transcend Awareness of Social Justice: Take Action!

Explore the Mathematics for Social Justice Toolkit! The Toolkit is designed to support educators in ensuring that all students have equal access to rigorous, grade level/course level mathematics and focuses on implicit bias/racism that often gets in the way of equitable opportunities. It includes implicit bias/racism scenarios focusing on mathematics and has guidance for how to respond to counteract similar situations.

GI | INT | 409 | Saturday, 1:00–2:00 | Marlin | BT

Co-presenter: *Jivan Dhaliwal*



tea and coffee

Available during the conference at
Merrill Hall, Fred Farr and Scripps
on Friday and Saturday.

Goldstein, Mark — Center for Mathematics and Teaching Turning Middle School Algebra Upside Down

Algebra has been done the same way forever. If you dig deep, the CCSS-M standards and related documents offer twists and opportunities to create connections and meaning, and help students see the beauty and utility in middle school algebra topics.

6–8 | INT | 221 | Saturday, 9:20–10:20 | Afterglow | BT

Gomez, Emiliano — UC Berkeley MDTP Diagnostics to Inform Instruction

The CSU/UC Mathematics Diagnostic Testing Project (MDTP) provides free resources and services to teachers of math courses in grades 6–12. Our assessment platform includes diagnostic tests, open response items, and learning modules. We will describe how to use them to build on current understanding and bridge unfinished learning for all students.

6–8 | PRS | 410 | Saturday, 1:00–2:00 | Curlew | BT

Co-presenter: *Kim Samaniego*

Grizzle, Carlton — Savvas Learning Company No Problem at All! Problem-based Learning for All

Explore strategies that help students develop a deeper understanding of concepts through interacting with each other and their teachers. Participants will engage in activities that enhance their knowledge of problem-based instruction as they explore how it develops conceptual understanding in students. Participants will walk away with effective strategies for using problem-solving to enhance students' learning and tools to engage students in interactive learning.

GI | INT | 416 | Saturday, 1:00–2:00 | Nautilus East | BT

Heinzman, Erica — San Diego State Univ. Exploring the Benefits of Non-traditional HS Math Courses

How can non-tradition math courses encourage more equitable participation in rigorous mathematical experiences for a wider range of students? Spoiler alert, they can! The popularity of non-traditional HS math courses is growing and some students (and teachers) are already benefiting. In this session, you will hear student voices and experience a taste of the learning that happens in the Discrete Math course.

8–12 | PRS | 403 | Saturday, 1:00–2:00 | Kiln | BT

Co-presenter: *Dr. Osvaldo Soto*

@CAMathCouncil



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Hoffmier, Susan — CPM Educational Program

• Building Procedural Fluency from Conceptual Understanding

In this highly engaging, hands-on session, participants will experience a sequence of problems using algebra tiles that build conceptual understanding. Algebra tiles provide differentiated geometric and algebraic models that demonstrate the same solutions but use differing approaches that exceed memorized algorithms. Participants will connect legal tile moves to abstract algebraic manipulation ranging from combining like terms to solving systems of equations.

6–8 | INT | 217 | Saturday, 9:20–10:20 | Nautilus West | BT

• Differentiate the Questions: NOT the Task

All students deserve to experience cognitively demanding tasks regardless of their different background knowledge. Participants will explore how to better build students' mathematical understanding, increase their confidence, and support their mathematical identities as doers of mathematics. Join us in engaging how to differentiate questions to support productive struggle while maintaining the rigor of a rich task.

6–8 | INT | 609 | Saturday, 3:40–5:00 | Marlin

Jalalpour, Kathleen — The Pi Project

The Power of Silence: Teaching More by Talking Less

Independent thinking leads to active learning, and is based on the premise that students can think, like to think and can learn more efficiently by figuring things out themselves. Come and hear stories and watch videos of classrooms where teachers talk less and students are given respect for their native intelligence, encouraged to take ownership of their own learning, and given the opportunity to develop a more authentic basis of conceptual understanding in math.

PK–2 | INT | 512 | Saturday, 3:40–5:00 | Curlew | BT

Co-presenter: *Corrinne Lieu*

James, Lybroan — Stemulate Solutions

Math is Emotional: Creating Equity Through SEL and Rigor

When asked, "how do you feel about math?" Most people respond, "hate math!" or "I'm not good at math." In this session, we will explore how emotions, identity and culture impact teacher pedagogy, student engagement, and levels of rigor in the content, as well as students' cognition and persistence in relation to math. We discuss what it looks like and sounds like when teachers and students have a healthy emotional connection to math, and strategies to counteract math fears and trauma.

6–8 | PRS | 210 | Saturday, 9:20–10:20 | Curlew | BT

Jones Carter, Krystal — Hoover MS

Engineering a Miniature Golf Course

How do we draw in populations that have been historically excluded from this game of power? One solution is to engage them as golf course engineers. This workshop presents a teacher-designed middle school project that explicitly traces golf's slow crawl towards inclusion while exposing students to rich mathematics: data analysis, integers, area, perimeter, and scale. You will engage in some of the project's activities, see how a team implemented it, and take home classroom-ready resources.

6–8 | INT | 121 | Saturday, 8:00–9:00 | Afterglow | BT

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Joyce, Martin — Sacred Heart Cathedral Preparatory
Launching Units with Inviting Anchor Lessons

Launching a unit with an inviting lesson provides a memorable experience you and students can reference. Come experience how using authentic class data to construct scatterplots, two way tables, functions, and dilations supports all students.

6–8 | INT | 310 | Saturday, 10:40–12:00 | Curlew | BT
 Co-presenter: Bob Rodinsky

Kelemanik, Grace — Fostering Math Practices
Annotation: A Powerful Tool to Make Math Thinking Visible

Are all of your students fully engaged in math discussions? If not, try annotating. Annotation is a powerful strategy to visually highlight student thinking and ensure all students can process, critique, and build on their classmates' ideas. Learn how teacher annotation provides access to a wide range of learners and build your annotating muscle. Leave with activities you can do alone, with colleagues, or coaches to build your capacity to be a powerful annotator of student thinking.

6–8 | INT | 302 | Saturday, 10:40–12:00 | Heather | BT
 Co-presenter: Amy Lucenta

Kleinjans, John — Pittsburg HS
A Different Approach to Right-triangle Trigonometry

In the unit circle there is a "special right triangle" for every angle between 0° and 90° . Each of these "unit right triangles" has a hypotenuse of length 1; the lengths of the opposite and adjacent legs can be calculated, and are called "sine" and "cosine." We set up proportions between these "unit right triangles" and the corresponding sides and angles of given right triangles.

8–12 | PRS | 516 | Saturday, 2:20–3:20 | Nautilus East | BT

Kriegler, Shelley — Center for Mathematics and Teaching
Reimagine Problem Solving with Diverse Populations

Participants will experience good problems that illustrate strategies for diverse populations. They will leave with classroom-ready problems and a tool to construct and analyze robust lessons.

6–8 | INT | 401 | Saturday, 1:00–2:00 | Fred Farr Forum | BT
 Co-presenter: Mark Goldstein

Kuno, Kathy — Irvine Unified SD
Green, Lead, Red: An Alternative to Timed Tests

Let's keep learning math facts for all students positive, productive, and purposeful. Ditch your timed tests and learn how using "Green, Lead, Red!" can empower your students to self-monitor their learning and increase their own math facts fluency. Green, Lead, Red (GLR) is a true formative assessment—it provides specific and measurable feedback for both teachers and students as to the next steps in the learning process.

3–5 | PRS | 415 | Saturday, 1:00–2:00 | Triton | BT
 Co-presenter: Tammy Striler

Kysh, Judy — San Francisco State Univ.
Designing Culturally Responsive yet Rigorous Assessment

The purpose of assessment is to learn what our students know and can do. Tests don't measure that! How can we make assessment more culturally responsive? This session will delve into two classroom alternatives: a project on linear, exponential, quadratic and possibly other functions, and summaries/concept maps to show what students know so far. Participants will work on and discuss these assessments in groups, and we will consider what is assessed, possibilities for revision, and how to grade.

8–12 | PRS | 608 | Saturday, 3:40–5:00 | Toyon | BT

Lahme, Brigitte — Sonoma State Univ. (emerita)
Agency and Identity Through Early Mathematical Modeling

Use familiar contexts to nurture math identity and agency when you engage young learners in meaningful, real world, developmentally appropriate modeling tasks. Learn to support students to generate their own questions, act out mathematically rich scenarios, and determine the reasonableness of their approaches and solutions. Practical tips and examples provided. SMP4 and a trajectory for expectations in later grades also explored.

PK–2 | INT | 605 | Saturday, 3:40–5:00 | Evergreen | BT
 Co-presenter: Kathy Morris

Lau, Michelle — Alameda COE
Pathway for Counselors Towards Equitable Math Instruction

Alameda County Office of Education held a three part series for secondary counselors to create a community of conversation amongst four different districts. Using the revised California Mathematics Frameworks as a lens for counselors, it inspired them to be key advocates for student opportunities in the ever-growing field of STEM. Attendees will experience the learning arc that the counselors were engaged in and will participate in some of the similar activities that deepened equity dialogue.

8–12 | INT | 116 | Saturday, 8:00–9:00 | Nautilus East | BT

Leslie, Debbie — Univ., of Chicago STEM Education
• Rigor and Play in PreK, TK, and Kindergarten Mathematics

We will address the types of experiences research suggests are effective for building young children's foundational math knowledge and dispositions as participants engage with examples of age appropriate, cognitively demanding early math activities.

PK–2 | PRS | 215 | Saturday, 9:20–10:20 | Triton | BT
 Co-presenter: Becky Criollo

• Developing Early Number Sense

We will unpack the many facets of early number sense and explore how to support PreK through Grade 2 children's development of number sense in ways that are coherent, engaging, and effective.

PK-2 | INT | 520 | Saturday, 2:20–3:20 | Hearth | BT

#Hashtag **CMCMATH**

Name badges must be worn at all times while attending the conference. Badges are required for entry into the sessions and the exhibit hall.

Li, Jun — Student Achievement Partners**• Math Milestones K–2: The Math of Your Grade on a Single Page**

What would it look like if your grade-level mathematics were represented through a canonical set of tasks? We'll explore this innovative OER tool to deepen your understanding of your grade's mathematics, support decision-making with your curriculum, and notice and build on students' assets to bring all students into grade-level learning.

PK–2 | INT | 107 | Saturday, 8:00–9:00 | Acacia | BT

Co-presenter: Jennie Beltrami

• Math Milestones 3–5: The Math of Your Grade on a Single Page

What would it look like if your grade-level mathematics were represented through a canonical set of tasks? We'll explore this innovative OER tool to deepen your understanding of your grade's mathematics, support decision-making with your curriculum, and notice and build on students' assets to bring all students into grade-level learning.

3–5 | INT | 507 | Saturday, 2:20–3:20 | Acacia | BT

Co-presenter: Harold Asturias

London, Robert — CSU San Bernardino**A Curriculum of Nonroutine Problems: Meaningful Mathematics**

This interactive session explains how to implement an accessible curriculum of nonroutine problems into a traditional mathematics course. Participants will experience solving a nonroutine problem and be provided with an extensive handout on implementation that will give guidance for over sixty nonroutine problems from seven strands, including increasing ecological awareness, appreciating diversity and addressing significant and meaningful problems in the student's life.

8–12 | INT | 503 | Saturday, 2:20–3:20 | Kiln | BT

Lopez, Guillermo**Supporting English Learners in Mathematics Grades 3-5**

How can teachers plan for instruction that maximizes students' success? Teachers will learn how to plan for rigorous (high challenge) grade level tasks, while embedding instructional scaffolds (high support) in mathematics. This session focuses on deepening an understanding of the components of high-quality instruction in mathematics that provides English learners students with opportunities to develop mathematical conceptual knowledge and English simultaneously.

3–5 | INT | 411 | Saturday, 1:00–2:00 | Sanderling | BT

Low, Patty — Explore Learning**• Solving the Fractions Problem: From Research to Classroom**

Fractions knowledge by grade 5 uniquely predicts success in higher mathematics. Yet, tests show that it's a struggle for many from grade 3 on. Fortunately, new research is finding instructional strategies that work. Join us to explore how applying an adaptive, game-based technology can help more students succeed.

3–5 | PRS | 204 | Saturday, 9:20–10:20 | Oak Shelter | BT

• Voice and Choice: Tell me how you know that!

There's more to math than just an answer. Engaging all students in moving beyond looking for just an answer to exploring and explaining the process. When students share their ideas, everyone benefits. Inquiry math lessons encourages students to build meaning.

6–8 | INT | 104 | Saturday, 8:00–9:00 | Oak Shelter | BT

Lucenta, Amy — Fostering Math Practices**A Strengths-based Approach to Develop Mathematical Thinking**

We'll explore six areas of accessibility we draw upon when thinking mathematically and analyze them with regard to student learning profiles and strengths. We'll experience a reasoning routine that embeds high-leverage, predictable and equitable designs for interaction and models a strengths-based approach. Participants will leave with strategies to engage all students in meaningful ways that build from students' learning strengths.

GI | INT | 602 | Saturday, 3:40–5:00 | Heather | BT

Co-presenter: Grace Kelemanik

Macfarlane, Mary — The Classical Academy, Escondido**Just the Facts: Helping Students Develop \times/\div Fact Fluency**

Mastery of and fluency with basic multiplication facts are key components in building a strong foundation in mathematics. A year-long progression beginning with the concept of multiplication and continuing with the foundational facts and beyond gives students plenty of time to master each set of facts with understanding rather than forcing simple rote memorization. Conceptual understanding instead of speed is the focus to give all students the opportunity to excel in mathematics.

3–5 | PRS | 111 | Saturday, 8:00–9:00 | Sanderling | BT

McNamara, Julie — Cal State East Bay**Developing Algebra Sense**

Developing algebra sense begins long before Algebra 1. We will examine how instructional practices in grades 3–5 lay the groundwork for this topic in middle school and beyond. You will leave with an understanding of how algebra sense is embedded in many common classroom practices, gain an appreciation of the importance of the work that students do in grades 3–5 and an understanding of the progression of algebraic reasoning, and leave with strategies and activities to take back to your students.

3–5 | INT | 420 | Saturday, 1:00–2:00 | Hearth | BT

Millerick, Melissa**The Rule of 4: One Method to Rule Them All**

Every function can be expressed as: an equation, table, graph, and situation. This unifying framework allows students multiple inroads, a system for categorizing new skills, and the ability to apply concepts across families of functions. It reduces cognitive load and allows multiple opportunities for learning; supporting reluctant mathematicians and challenging the most exuberant. We'll look at applications from Algebra–PreCalc. You will leave this session with tools you can use on Monday.

8–12 | INT | 206 | Saturday, 9:20–10:20 | Scripps | BT

Please stay on the paved pathways that meander through the grounds or the boardwalks that take you on a delightful journey through the dunes. By keeping people off of the vegetation, Asilomar is able to preserve the natural landscape for all to enjoy for many years to come. You might see some paths that look like walking trails, but if they are not paved, they are simply animal trails created by many hooves walking the same route through the grounds. Thank you very much for your cooperation.



Merrigan, Paula — Castro Valley Unified SD
Keeping Math Engaging and Fun in TK and K with Math Centers

Hands-on experiences are far more engaging for our young learners than just using paper and pencil to master a mathematical concept. Using manipulatives and games with math centers allow children to learn through play. I'll give you the format to help create engaging math centers in your classroom with minimal prep. I'll also provide you with ideas and masters to recreate math centers for your TK or K class.

PK-2 | INT | 202 | Saturday, 9:20-10:20 | Heather | BT

Merritt, Ramsey — Oakwood School

• **Turning the Tide on Math at Your Elementary School**

This session, intended for coaches and instructional leaders, will focus on strategies and tips you can use to turn your school into a place where math is loved and not feared. Even our smallest students can feel when their teacher shows the slightest aversion to math. Turning teachers into lovers of math is step 1. But there are myriad other things you can do to promote the joy of math in your school community.

Ldrshp | PRS | 106 | Saturday, 8:00-9:00 | Scripps Conference

• **Making Inquiry-based Math Instruction Work for Every Student**

Students understand concepts and retain skills better when they discover those things for themselves. The challenge is getting the wide range of learners in your room to come to the same discovery. This is especially difficult for teachers who are "recovering traditionalists" or who are early-career. We will go over 2-3 anchor tasks together and talk through ways to increase overall buy-in, scaffold for our strugglers, and extend/enrich for those who need it.

3-5 | INT | 621 | Saturday, 3:40-5:00 | Afterglow | BT

Meyer, Dan — Desmos

• **Math Is Power Not Punishment**

We often offer students shortcuts, strategies, and skills before students understand their origin, their value, and the millions of hours of work they've saved mathematicians throughout history. We'll look at techniques for putting students in a position to need these challenging skills so they feel like power, not punishment.

6-12 | GI | 100 | Saturday, 8:00-9:00 | Chapel

• **Math Without Mistakes**

The math education community has worked to destigmatize mistakes in recent years, yet it continues to diagnose as mistaken what is instead very purposeful student thinking. We'll learn about curriculum, technology, and strategies that celebrate and develop that thinking instead, helping learners grow in their math identity and knowledge.

GI | PRS | 200 | Saturday, 9:20-10:20 | Chapel

Your feedback is important to us! Please take a moment to complete the **Speaker evaluation** at <http://bit.ly/AsilomarSpeakerEval>



Millerick, Melissa — Terra Linda HS
The Rule of 4: One Method to Rule Them All

Every function can be expressed as an equation, table, graph, and situation. This unifying framework allows students multiple inroads, a system for categorizing new skills, and the ability to apply concepts across families of functions. It reduces cognitive load and allows multiple opportunities for learning; supporting reluctant mathematicians and challenging the most exuberant. We'll look at applications from Algebra-PreCalc. You will leave this session with tools you can use on Monday.

8-12 | INT | 206 | Saturday, 9:20-10:20 | Scripps | BT

Morrison, Patty — Fresno Unified SD
Using Literature in the Math Classroom

Literature is a great way to engage children in math. I will have lessons I created and had published in the CMC Communicator. Come and have a fun time reading literature and exploring math concepts after! You will have math lessons ready to go on Monday!

PK-2 | PRS | 421 | Saturday, 1:00-2:00 | Afterglow | BT

Moss, Diana — Univ. of Nevada, Reno

• **Practices for Promoting a Healthy Mathematics Identity**

Drawing on bell hooks and Engaged Pedagogy, we invite teachers to reflect on their own math teaching practices. We encourage them to revise and challenge their assumptions about learning and teaching math by examining student self-portraits and letters to math; which often involve teachers. We will share poignant stories about learning and teaching math, to develop a safe space for dialogue, listening, and care for the mathematical identities of our students.

Tchr Ed | INT | 617 | Saturday, 3:40-5:00 | Nautilus West | BT
Co-presenter: Claudia Bertolone-Smith

• **Revisiting How to Teach Using Algebra Tiles**

Join us in making algebra tile models to help middle school students make sense of algebra. In this Make It, Take It workshop, teachers will engage in an interactive lesson that reviews the many uses of algebra tiles and will discuss approaches to teaching algebra, including variables, solving equations, combining like terms, factoring polynomials, and more! Materials will be provided so that teachers can make their own models and take their models to use in their own classrooms.

6-8 | MITI | 512 | Saturday, 2:20-3:20 | Dolphin
Co-presenter: Claudia Bertolone-Smith

Muller, Eric — Exploratorium Teacher Institute

Seeing Math Around You: Geometry, Data and Your Vision

Use your eyes to collect data on your vision! Use math to show why texting and driving is such a bad idea. Groups will obtain and analyze real data with their own eyes while engaging in easy to do, equitable, hands-on activities. Lessons to be shown are intended to introduce basic concepts in geometry, algebra and statistics, but can be used to go much deeper. These activities, created at the Exploratorium Teacher Institute, will get your students engaged and excited about math.

GI | INT | 105 | Saturday, 8:00-9:00 | Evergreen | BT

Out of respect for presenters and other participants, please silence or turn off electronic devices during sessions.

Nank, Sean — California State Univ. San Marcos**• 10 Strategies to Foster Equitable Interactions and Belonging**

Engaging students in mathematical discourse can be hard for teachers, especially fostering equity of student voice. Come discuss how to embrace the promise of mathematics for all through interactions between students, teacher, and the math. Learn how to track student interactions, examine the data for implicit bias, and have conversations that transform classroom equity. We will learn actionable steps for inspiring classroom interactions and ensuring all students belong.

GI | INT | 311 | Saturday, 10:40–12:00 | Sanderling | BT

Co-presenter: *Kathleen Sheehy*

• You Have to Choose: Removing Barriers via Reflective Stories

Profound advocacy and a joy for math occurs when it is proactive and all feel welcome. Come engage in “You Have to Choose” where we use vignettes of actual occurrences in education to foster discussions about lessons learned while disrupting systemic barriers via reflection on your stories. Vignettes will address covert and overt racism, bullying, identity, belonging, and other topics while reflectively learning from your personal stories and embracing empathetic storytelling in the classroom.

GI | INT | 601 | Saturday, 3:40–5:00 | Fred Farr Forum | BT

Co-presenter: *Jackie Murawska*

Nickerson, Rob**• Be Clear: Precise Language for Addition and Subtraction**

Students learn addition and subtraction strategies to tackle a variety of computation situations. Couple the strategies with language and students can be flexible, accurate, and efficient during their process. Let’s be clear with the language to support fluency development for our young mathematicians.

PK-2 | INT | 108 | Saturday, 8:00–9:00 | Toyon

• Persevere: It’s Not Just for Mathematics!

All students are mathematical thinkers who can engage in discussions that promote productive struggle and perseverance. Engaging students, and keeping them engaged, in the problem-solving process requires structures and processes to go beyond math. Let’s explore structures that promote “make sense of problems and persevere in solving them.”

3-5 | INT | 521 | Saturday, 2:20–3:20 | Afterglow | BT

Novelli, Barbara**Using Games to Teach and Assess in the Primary Classroom**

Games provide a context for teaching math while students are having fun and learning. While students are actively engaged in a game a teacher can assess student’s current progress in understanding a math concept. That teachable moment also may come while students are playing games. Students will want to understand the math so they can win the game! Barbara will share great math games and many easy to implement techniques for teaching and assessing math using games.

Ldrshp | INT | 317 | Saturday, 10:40–12:00 | Nautilus West | BT



tea and coffee

Available during the conference at
Merrill Hall, Fred Farr and Scripps
on Friday and Saturday.

Ortega, Courtney**Who’s Learning During Learning Walks**

In Oakland Unified, we meet weekly as a Math Coaching Collaborative. Site-based math coaches come together to craft a year-long inquiry question around a shared problem of practice, and engage in a variety of inquiry-focused activities. Come learn how we use Learning Walks at each other’s sites to calibrate around indicators of high-quality teacher and student actions, and deepen coaching practices through effective feedback. Find out what each stakeholder takes away from the process.

Ldrshp | INT | 604 | Saturday, 3:40–5:00 | Oak Shelter

Pariso, Rebecca**Using Desmos to Support a Universal Design for Learning**

According to CAST.org, a Universal Design for Learning (UDL) focuses on “embedding flexible strategies into the assessment during the planning process so that all students can access the content.” This session will discuss how to use Desmos to create math lessons grounded in a UDL. Come learn how to apply UDL guidelines as a tool for learning to ensure the needs of all math learners are met regardless of language ability, socioeconomic status, content knowledge, or special needs.

GI | PRS | 112 | Saturday, 8:00–9:00 | Dolphin | BT

Co-presenter: *Ryan Pariso*

Phillips, Jamie — Pope Valley Union ESD**Maximize Your Math Block**

So little time, so much to teach! Organize your math block into a series of routines that maximize daily time for collaborative learning, whole class instruction, and small group intervention and enrichment. This session will take you through an example of a primary classroom math block, including experiences with rich low floor/high ceiling activities. Sample schedules and organizers will also be provided. Create your ideal math space where all students will grow!

PK-2 | INT | 505 | Saturday, 2:20–3:20 | Evergreen | BT

Pittock, Janet — Legends of Learning**Success is in the Numbers: Building Fact Fluency**

Learn how to systematically build basic fact fluency based on number sense and strategies. This presentation will explain the concepts behind fact fluency and why the “drill and kill” method doesn’t work for math success in the long term. With an approach based on establishing facts and then evolving those facts from short to long-term memory, students will be engaged and motivated to learn their basic math facts and achieve fact fluency, using an individualized, game-based learning approach.

3-5 | INT | 511 | Saturday, 2:20–3:20 | Sanderling | BT

Raman, Sandhya — Morrill MS, Berryessa Union SD**Social Justice + Mathematical Modeling = Meaningful Learning**

The session will highlight using community and cultural connections, together with data to empower tasks addressing equity and relevant social needs. Attendees will engage in lessons and equity-based practices that showcase agency and identity. There will be some resources to take away and some ready-to-implement ways to start by reflecting on the world using math.

6-8 | PRS | 101 | Saturday, 8:00–9:00 | Fred Farr Forum | BT

Co-presenter: *Ma Bernadette Andres-Salgarino, Gil Agoylo*

Ramer, Elaina**Statistics for All: Socially Relevant Lessons**

Many of our students don't love math...yet. And many math teachers don't love statistics...yet. However, lessons about social justice issues such as water contamination, LGBTQ justice, and hiring discrimination can spark engagement for both! In this session, participants will do a few activities appropriate for Math 1 through AP Stat. We'll discuss teaching strategies, adapting resources, and preparing for challenging classroom conversations. New teachers and stats-hesitant teachers are welcome!

8–12 | INT | 316 | Saturday, 10:40–12:00 | Nautilus East | BT

Ray, Solana — Callahan Consulting**Beautiful Mathematical Explanations in the Primary Classroom**

Young students have an entertaining and enlightening amount to say about their mathematical thinking when given the chance. We will share K–2 activities that provide opportunities to practice oral communication as well as formative assessment tools designed to capture, celebrate, and honor student voice. We will also share tools for analyzing student explanations that will provide teachers with actionable next steps and focused feedback to help students become clear and powerful communicators.

PK–2 | INT | 212 | Saturday, 9:20–10:20 | Dolphin | BT

Raygoza, Mary — Saint Mary's College of California**Social Justice Math: Beginning with Beloved Community**

This session explores five facets of building beloved community in as a foundation for social justice math exploration in middle school: 1) Reflect on your teacher positionality; 2) Learn about your students as people and specifically as young adolescents who do math; 3) Establish math class community commitments; 4) Engage students in math community builders and icebreakers; 5) Facilitate temperature checks, in relation to and beyond math.

6–8 | INT | 322 | Saturday, 10:40–12:00 | Embers | BT

Co-presenter: *Eva Thanheiser, Lateefah Id-Deen, Basil Conway, John Staley*

Rendon, Sharon — CPM Educational Program**How Might We Rethink Intervention?**

Do you have students who struggle and need intervention? What is the answer? Pre-teach? Vocab drill? More practice? Join me to experience intervention redesigned; a course focusing on relationships, problem-solving, and enjoying mathematics. Experience activities to support students as they rebuild their mathematical identity and read comments from teacher surveys.

6–8 | INT | 207 | Saturday, 9:20–10:20 | Acacia | BT

Restani, Rachel — Univ. of California, Davis**Using Student Explanations as a Tool to Understand Fractions**

How do multilingual children explain their work on CGI equal sharing fraction problems? We will share audio, transcripts and pictures of multilingual children's work and analyze it through the lens of children's mathematical and linguistic development. Our student work samples demonstrate how multilingual elementary students solve problems and explain their thinking, positioning them as authorities who are thinking for themselves and figuring out their own ways to solve problems.

3–5 | INT | 308 | Saturday, 10:40–12:00 | Toyon | BT

Co-presenter: *Hilda Yudess*

Reyes, Jessica — EdGems Math**Reimagining Fluency Through Powerful Routines**

This session focuses on engaging students in activities that promote the development of mathematical fluency. The fluency routines modeled and practiced in this session will provide teachers with highly-effective strategies designed to develop all students' fluency in mathematics, with a focus on flexibility, efficiency, and accuracy. By establishing fluency routines as a regular practice, teachers will build a classroom culture which fosters perseverance and confidence in mathematics.

6–8 | INT | 508 | Saturday, 2:20–3:20 | Toyon | BT

Co-presenter: *Ally Wojciechowski*

Roberts, Christine**Exploring Children's Mathematical Thinking**

Discover the brilliance in children's mathematical thinking as we watch videos, examine student work, and engage in conversations about children's powerful mathematical ideas. Explore children's ideas about counting and problem solving and discuss ways to support students to share their thinking, engage with each other's ideas, and use student thinking to guide instruction. Think about ways to build inclusive classroom communities that position students as capable mathematicians.

PK–2 | INT | 304 | Saturday, 10:40–12:00 | Oak Shelter | BT

Co-presenter: *Stephanie Ahumada*

Rossi Becker, Joanne — San Jose State Univ.**Content Connections and the Drivers of Investigation (Framework)**

In this presentation we will discuss two concepts in the proposed new CA framework that relate to coherence, focus and rigor: Drivers of Investigation (Dis) and Content Connections (CCs), as they relate to grades 8–12. Participants will experience: examples of Dis that help students make sense of the world, predict what might happen, and impact the future; and examples of how to organize content and provide coherence across the grades through use of big ideas that link one or more CCs with SMPs.

8–12 | INT | 222 | Saturday, 9:20–10:20 | Embers | BT

Ruby, Stephen — Berkeley HS**Engaging Warm ups Through Puzzles and Games**

The first five to ten minutes of a class are essential to hook the students on a particular topic or to get them engaged with mathematics. I have experimented with a multitude of different mathematical puzzles and games to not only teach math concepts but also to get students to become more persistence and creative problem solvers. My goal is to share with you several different types and how you can incorporate them into your classroom.

8–12 | INT | 501 | Saturday, 2:20–3:20 | Fred Farr Forum | BT

Sagun, Theodore — California State Univ., Los Angeles**Leveraging Routines to Broaden Participation**

Come and engage in problem solving activities to broaden participation in middle school classrooms. Participate in routines such as Choral Counting to surface and build on students' thinking as well as to support students to recognize their great math ideas. See how data is collected to recognize student participation and used to make instructional decisions.

6–8 | INT | 504 | Saturday, 2:20–3:20 | Oak Shelter | BT

Co-presenter: *Joy Zimmerman*

Salisbury, Kurt — Desmos Inc.
Telling a Math Story Using Desmos

Informal language is an integral part of the mathematics classroom. When students are free to express mathematical ideas by telling a story, student mathematical identity is heightened. Also, storytelling in the classroom values student funds of knowledge as a part of universal learning design. In this session, participants will explore telling a math story, its value to the classroom, and how Desmos can support student representation by connecting informal language.

GI | INT | 407 | Saturday, 1:00–2:00 | Acacia | BT

Sgroi, Richard — Bedford Schools, Math Teacher (retired)
Fortifying the First Five: Do Nows Done Better!

Learn how to use 20 innovative strategies to increase lesson productivity by fortifying the first five minutes of any math class. These methodologies include using quotes, essential questions, financial applications, foreign language texts, error correction, notebook scavenger hunts, historical facts, partner problems, problem posing, non-traditional graphs, quizzes and more.

8–12 | INT | 109 | Saturday, 8:00–9:00 | Marlin | BT

Shelley, Amanda — Big Ideas Learning
Shifting Mindsets from Remediation to Accelerating Learning

Are your students stuck in a remediation rut? Are you struggling to introduce new content because students are lacking prerequisite skills? It's time to shift our thinking from remediation to accelerating learning; from "just-in-case" to "just-in-time" instruction. In this session you will explore the benefits of accelerating learning and learn about effective strategies educators can use to ensure that students can access new content without falling further behind.

TchrEd | PRS | 309 | Saturday, 10:40–12:00 | Marlin | BT

Co-presenter: Erin Ross

Smith, Ruth — High Tech High, Graduate School of Education
Equity for ALL = Math x Cultivating Safety2

"I'm not good at math!" is a common expression from many students. Mathematics tends to bring up feelings of anxiety, pressure to perform, and a fixed mindset. Our vision of an equitable math classroom is one where all students feel safe socially and emotionally so that they are ready to learn! This session will provide educators the space to share their math stories, make math connections to students' lived experiences and will take away best practices to cultivate an academically safe classroom.

3–5 | INT | 211 | Saturday, 9:20–10:20 | Sanderling | BT

Co-presenter: Dr. Curtis Taylor

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Sola, Tracy — Silicon Valley Mathematics Initiative

• **K–2 Card Sort Power: Collaborative Mathematics for All**

Card sorts provide student choice and access when exploring beginning number concepts, both keys to embracing the joy of mathematics. Create a space for young learners to develop their mathematical agency, ownership, and identity with their peers. Explore the content-building potential of card sorts and the pedagogy of facilitating groupwork for successful student collaboration. Experience existing card sorts and receive tools to help you create your own. Let's have some fun!

PK–2 | INT | 102 | Saturday, 8:00–9:00 | Heather

• **Talk Data to Me: Data Talks for Connection and Empowerment**

Data Talks provide middle and high school students the opportunity to explore data concepts and activate prior knowledge in a low risk setting before tackling a task or lesson. A classroom culture in which all voices are valued and have access to the content is a right that all students deserve. A well-positioned data talk can break the ice, focus attention on concepts, and provide a bridge to engagement with the lesson. Experience equitable data talk structures and routines to add to your facilitation toolkits.

6–12 | INT | 612 | Saturday, 3:40–5:00 | Dolphin

Standiford, Gail — Univ., of California, Davis
Algebra Tiles: A Great Way to Build Conceptual Understanding

Do your students struggle with algebraic concepts? Learn how a visual, hands-on approach can help students understand algebraic concepts and accelerate their learning. The best intervention is to build a solid conceptual understanding in the core classroom. Topics include integer operations, order of operations, simplifying polynomial expressions, solving equations, and setting the foundation for high school concepts such as factoring and completing the square.

6–8 | INT | 315 | Saturday, 10:40–12:00 | Triton | BT

Stern, Michael — Heritage Peak Charter School

• **Rainbow Logic**

Rainbow Logic is a colorful activity centering around the placement of seven rectangles (one for each color of the rainbow) in a 10 by 10 grid. This activity addresses several strands: Number Sense, Operations, Geometry, Probability and Problem Solving. Rainbow Logic culminates in a competition similar to the game "Battleships," where opponents devise strategies for guessing the placement of each other's rectangles. Students will gain a visual depiction of prime, composite and square numbers.

3–5 | INT | 510 | Saturday, 2:20–3:20 | Curlew | BT

• **Using Puzzles to Teach Problem Solving**

Everyone's hooked on Wordle, and Sudoku and crosswords still have their devotees. This session will examine several other puzzles ("Suko," "Challenger," and "Cell Blocks") that are published daily (both online and in print), which will grab your students' attention. Puzzles offer an excellent opportunity for practicing Problem Solving strategies and incorporating Number Sense skills in the process. This interactive session will provide tips on how to introduce each puzzle to your students.

6–8 | INT | 417 | Saturday, 1:00–2:00 | Nautilus West

@CAMathCouncil

Sutton, Kim — Creative Mathematics**• Number Sense Games to Dazzle Learners!**

Math games are tools for practice of concepts that we are building with our students! Primary learners will love these number sense games to make place value and the operations come alive! The handout is filled with practical games that will inspire students to play and improve skills! Kim Sutton will focus on dice, playing cards and domino games that can be used in whole class, small group or work stations!

PK-2 | INT | 303 | Saturday, 10:40-12:00 | Kiln | BT

• Need Ideas for Improving Math Working Memory?

This session is about improving math working memory through three amazing games for grades 3-5! What is the return? Students will improve many math skills that require retention of information! You will love the handout filled with simple strategies to use right away in your classroom whether used whole class, small group or in work stations!

3-5 | INT | 603 | Saturday, 3:40-5:00 | Kiln | BT

Szoke, Noam**Math Content Connections: Powerful Progressions Activities**

No matter how far apart students' current math understanding is from new learning, the two are connected through a progression of concepts. By focusing on these connections, the progressions can act as a pathway, rather than a hindrance, towards understanding complex math concepts. Learn how to use innovative and engaging math games and routines to meet students where they are and connect their understanding across content progressions, illuminating how concepts build within and between grades.

GI | INT | 312 | Saturday, 10:40-12:00 | Dolphin | BT

Co-presenter: Jennifer Hein deMause

Thompson, Meagan — Fresno COE**Connecting Big Ideas into a Web of Mathematical Design**

Big ideas allow students to link numerous mathematical understandings into a coherent whole. The creation of this learning web provides focal points for student investigations and allows SMP's to naturally emerge. We will take you through our journey of aligning Jo Boaler's Big Ideas in Mindset Mathematics to 8th standards and FIAB's. Teaching to big ideas is an efficient form of standards-aligned instruction and incorporates all of our SMP's to ensure that Mathematics is for ALL!

6-8 | INT | 405 | Saturday, 1:00-2:00 | Evergreen | BT

Tran-Zwijzen, Leim**An Approach to Equitable Grading in Math Courses**

I will share how we have implemented equitable grading practices along with our process for SBG practice in our middle school math courses. Participants will leave with ideas they can start implementing in their classes.

6-8 | PRS | 622 | Saturday, 3:40-5:00 | Embers

Tuska, Agnes — California State Univ., Fresno**Multiplication Without the Multiplication Table? Yes!**

Many students struggle with memorizing the multiplication table. What makes it so challenging to so many people? Learn answers from cognitive science research. Are there alternative methods of multiplication that do not require mastering the table? Let's study together the history of mathematics to answer this question.

Ldrshp | INT | 406 | Saturday, 1:00-2:00 | Scripps Conference | BT

Vriesman, Robert — Retired Mathematics Teacher**Teaching Mathematics: An Intuitive Approach**

This method of teaching math builds upon a student's innate knowledge of math. Rather than procedures and formulas, it guides the student to an intuitive understanding. Emphasis is on writing one's own materials. This approach to teaching emphasizes the aesthetic appeal of math. An effort is made to find the students intuitive threshold of math and build upon what they know. Teachers are encouraged to "get out of the book" to be able to make mathematics come alive for their students.

8-12 | INT | 320 | Saturday, 10:40-12:00 | Hearth | BT

Williams, Cathy**Making Connections Through the Big Ideas of the California Math Framework**

Let's do some math together as we journey through California's big ideas. An approach of "Teaching to big ideas and connections" gives teachers time to focus on rich and equitable pedagogy. In this session, you will experience mathematical connections, through number sense, algebra, and geometry in active and engaging tasks.

8-12 | PRS | 300 | Saturday, 10:40-12:00 | Chapel

Wright, Hilda — Kern COE**• Non-curricular Tasks for the Thinker**

Students are natural problem solvers and come with a wealth of experiences that shape their thinking. In this session, we will explore some fun, engaging tasks that will keep you wondering and learning from others. We will use some of Peter Liljedal's Teaching Practices from "Building Thinking Classrooms in Mathematics" in an effort to strengthen independent learners. Be ready to struggle productively, have fun, and find joy in mathematics. Tasks and structures can be used immediately.

6-8 | INT | 115 | Saturday, 8:00-9:00 | Triton | BT

• Math Talks: Using Visuals to Build Confident Mathematicians

In this session, we will focus on using engaging pictures/visuals in order for students to use their voices to share thinking, reason with others, and make connections. Pictures/Visuals are a great way for all students to enter the discussion and behave as a mathematician. Using a math talk structure, we will explore questions that allow for students to build a strong math identity as experts and contributors. Participants will be provided digital resources to use immediately.

PK-2 | INT | 305 | Saturday, 10:40-12:00 | Evergreen | BT

We have made every attempt to provide adequate seating for participants at the conference. However, to ensure your safety and adhere to fire regulations, the number of participants allowed in each meeting room will be limited to the number of seats approved by the Fire Marshall. Anyone sitting on the floor or standing will be asked to leave the room. Please check the Program Matrix for the **seating capacity** of each room. All seats are available on a first-come, first-served basis.

Code of Conduct

Member and Events Code of Conduct

This professional code of conduct outlines CMC's expectations for all CMC members and participants at CMC events as adopted by the CMC State Board.

CMC expects its members and event participants to communicate professionally and constructively, whether in person or virtually, handling dissent or disagreement with courtesy, dignity and an open mind, being respectful when providing feedback, and being open to alternate points of view.

When sharing information about the organization or via public communication channels, CMC expects its members and event participants to share responsibly and clearly distinguish individual opinion from fact.

CMC members and event participants are committed to providing a friendly, safe, supportive and harassment-free environment for all CMC members and participants, regardless of gender, age, sexual orientation, gender identity, gender expression, disability, physical appearance, body size, race, ethnicity, religion or other group identity.

Unacceptable Behavior

CMC does not tolerate harassment of CMC members, staff, or other persons involved in CMC events and activities.

Harassment includes offensive verbal or written comments and negative behavior, either in real or virtual space, including those that are related to or are based upon gender, age, sexual orientation, gender identity, gender expression, disability, physical appearance, body size, race, ethnicity, relation or other group identity. Harassment also includes display of sexual images in public spaces, deliberate intimidation, stalking, following, harassing photography or recording, sustained disruption of talks or other events, and unwelcome physical contact or sexual attention. Sexual language and imagery are not appropriate for any member venue, including events, talks, workshops, social events and social media.

Adapted from the International Society for Technology in Education Codes of Conduct
<https://www.iste.org/membership/codes-of-conduct>

CMC-North would like to express its sincere gratitude to:

The Asilomar Program Committee—for preparing an enriching program with speakers who are experts in their field, a variety of presentations to energize and expand the skills and talents of each mathematics educator, and a feeling of renewed enthusiasm for teaching.

The Speakers—for providing stimulating presentations and sharing new ideas, teaching methods, and tools. We acknowledge the many hours of preparation they have spent to provide you with valuable handouts and with this opportunity for growth and networking.

The Asilomar Committee Chairs and Volunteers—for providing you with the best support to help make your experience at this year's conference go smoothly through their help with equipment, signs, logistics, and more.

The Presiders and Pre-service Teacher Volunteers—for providing speakers with a warm welcome, an introduction, and a hearty thank you at the end of each session. Presiders are the ones that keep speakers coming back to Asilomar.

Thank You

Access & Equity strand will develop Awareness in Equity and Social Justice in Mathematics and The Five Dimensions of Powerful Classrooms encompassing Equitable Access to Content and Agency, Authority, and Identity.

Coaching strand will focus on the coaches role in supporting all aspects of the teaching and learning of mathematics.

Each hour during the day different elementary, middle, and high school teachers will share **games** they have been using with their students. There are games for practice, strategy games from the ComMuniCator, and hand games.

In the **Make-It, Take-It (MITI)** strand you can make your own models for classroom projects and activities. Each session is limited to 25 participants. There may be a small materials fee for some sessions.

A **social justice** approach works to transform mathematics from a gatekeeper to a gateway, democratizing participation and maximizing education advancement that equitably benefits all children rather than a select few. The goals of social justice in mathematics education include more empathy, more justice, and more equity.

■ **Access & Equity**

Acosta, Kristen
 Albrecht, Masha
 Anspach, Chris
 Bates, Abigail
 Baumann, Tammy
 Burrill, Gail
 Byrne, Martha
 Cagle, Peg
 Callahan, Patrick
 Chan, Helen
 Cheng, Jenny
 Chu, Haiwen
 Chun, Dave
 Cook, Julia
 Cordero, Montse
 Craig, Jamica
 Damm, Suzanne
 Fetter, Annie
 Gale, Mardi
 Gallardo, Zenaida
 Gomez, Emiliano
 Grizzle, Carlton
 Heinzman, Erica
 Hoffmier, Susan
 Jalalpour, Kathleen
 James, Lybroan

Joyce, Martin
 Kelemanik, Grace
 Kriegler, Shelley
 Kuno, Kathy
 Lahme, Brigitte
 Lau, Michelle
 Leslie, Debbie
 Li, Jun
 London, Robert
 Lopez, Guillermo
 Low, Patty
 Lucenta, Amy
 McNamara, Julie
 Merritt, Ramsey
 Meyer, Dan
 Millerick, Melissa
 Morrison, Patty
 Moss, Diana
 Muller, Eric
 Nank, Sean
 Nickerson, Rob
 Pariso, Rebecca
 Phillips, Jamie
 Ray, Solana
 Rendon, Sharon
 Restani, Rachel
 Reyes, Jessica

Roberts, Christine
 Sagun, Theodore
 Salisbury, Kurt
 Shelley, Amanda
 Smith, Ruth
 Sola, Tracy
 Standiford, Gail
 Stern, Michael
 Szoke, Noam
 Thompson, Meagan
 Tran-Zwijnsen, Liem
 Tuska, Agnes
 Vriesman, Robert
 Wright, Hilda

■ **Coaching**

Merritt, Ramsey
 Ortega, Courtney

■ **Make It, Take It**

Moss, Diana

■ **Games**

Ahmadi, Jason
 Baumann, Shelly
 Bertolone-Smith, Claudia
 DeRosa, Natalie

Diamond, Ned
 Merrigan, Paula
 Novelli, Barbara
 Pittock, Janet
 Ruby, Stephen
 Stern, Michael
 Sutton, Kim

■ **Social Justice**

Condon, Joe
 Garcia, Isabel
 Jones Carter, Krystal
 Moss, Diana
 Raman, Sandhya
 Ramer, Elaina
 Raygoza, Mary
 Rossi Becker, Joanne

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Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience						Beginning Tch.
		K–2	3–5	6–8	8–12	Ldship/TchEd	GI	
Abell, Steven	Syntax as a Tool for Thought						√	√
	DragginMath: Algebra from a Different Angle						√	√
Acosta, Kristen	Hanging Math Out to Dry: Clotheslines that Build Number Sense						√	√
Agnew, Morgan	P Before You Have T-test: P-Values from Hands-on Simulations				√			√
Ahmadi, Jason	Castle Smash! Making Review Fun!				√			√
Albrecht, Masha	Assessing Student Understanding Through Projects				√			√
Anspach, Chris	Grading as a Tool for Equity				√			√
Asturias, Harold	Counting Our Way to Number Sense (Framework Focus)	√						
Bates, Abigail	Building Thinking Classrooms: Beginning the Journey				√			√
Baumann, Shelly	Games and Activities for Numerical Fluency			√				√
Baumann, Tammy	I'm All Ears: Listening to Understand Student Thinking			√				√
Bean, Joshua	Enhancing Student Agency by Healing Math Trauma						√	√
Bertolone-Smith, Claudia	Creating Connections: Bringing Back Our Favorite Math Games!		√					√
Boswell, Laurie	Tasks that Trigger Thoughtful Talk		√					√
	For the Love of Geometry!				√			√
Burns, Sarah	Research-based Approaches to Coaching for Equity					√		
Burrill, Gail	Developing Understanding in Middle Grades Mathematics			√				√
Byrne, Martha	Community Building and Curve Sketching				√			√
Cagle, Peg	Reimagining and Rehumanizing Math Assessment: First Do No Harm				√			√
Callahan, Patrick	Building Better Assessments Through Student Voice						√	√
Chan, Helen	\$The Price is Right\$: Exploring Decimal Multiplication		√					√
Cheng, Ivan	How to Entice All Students to Engage in Learning Mathematics				√			
Cheng, Jenny	Investigating Big Ideas Through Student Thinking			√				√
Chun, Dave	SAMRizing Math Tasks						√	√
Chu, Haiwen	Supporting English Learners in Mathematics Grades 9–12				√			√
Condon, Joe	Data/Graph Talks and Social Justice			√				√
Cook, Julia	The "R" in CRL						√	√
Cordero, Montse	YouCubed: Explorations in Data Science: Maths For All				√			√
Craig, Jamica	Rethinking Tier 1 Intervention			√				√
Damm, Suzanne	Place Value: The Key to Elementary Mathematics	√						√
	The Framework and Fractions		√					
DeRosa, Natalie	Jedi Mind Tricking All Students to Engage in Math Tasks				√			√
Diamond, Ned	Low Floor, High Ceiling Activities to Engage All Learners			√				√
Fetter, Annie	The Power of Students' Ideas		√					√
Franklin, Jim	Number Line to 10,000,000 and Other Math Manipulatives		√					√
Gale, Mardi	Purposeful Questioning = Access, Ownership, Understanding						√	√
Gallardo, Zenaida	The Joy of Counting and Exploring: Connecting Literacy and Math	√						√
Garcia, Isabel	Transcend Awareness of Social Justice: Take Action!						√	√

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience						Beginning Tchr.
		K-2	3-5	6-8	8-12	Ldshp/TchEd	GI	
Goldstein, Mark	Turning Middle School Algebra Upside Down			√				√
Gomez, Emiliano	MDTP Diagnostics to Inform Instruction			√				√
Grizzle, Carlton	No Problem at All! Problem-based Learning for All						√	√
Heinzman, Erica	Exploring the Benefits of Non-traditional HS Math Courses				√			√
Hoffmier, Susan	Building Procedural Fluency from Conceptual Understanding			√				√
	Differentiate the Questions: NOT the Task			√				
Jalalpour, Kathleen	The Power of Silence: Teaching More by Talking Less	√						√
James, Lybroan	Math is Emotional: Creating Equity Through SEL and Rigor			√				√
Jones Carter, Krystal	Engineering a Miniature Golf Course			√				√
Joyce, Martin	Launching Units with Inviting Anchor Lessons			√				√
Kelemanik, Grace	Annotation: A Powerful Tool to Make Math Thinking Visible			√				√
Kleinjans, John	A Different Approach to Right-Triangle Trigonometry				√			√
Kriegler, Shelley	Reimagine Problem Solving with Diverse Populations			√				√
Kuno, Kathy	Green, Lead, Red: An Alternative to Timed Tests		√					√
Kysh, Judy	Designing Culturally Responsive yet Rigorous Assessment				√			√
Lahme, Brigitte	Agency and Identity Through Early Mathematical Modeling	√						√
Lau, Michelle	Pathway for Counselors Towards Equitable Math Instruction				√			√
Leslie, Debbie	Rigor and Play in PreK, TK, and Kindergarten Mathematics	√						√
	Developing Early Number Sense	√						√
Li, Jun	Math Milestones 3-5: The Math of Your Grade on a Single Page		√					√
	Math Milestones K-2: The Math of Your Grade on a Single Page	√						√
London, Robert	A Curriculum of Nonroutine Problems: Meaningful Mathematics				√			√
Lopez, Guillermo	Supporting English Learners in Mathematics Grades 3-5		√					√
Low, Patty	Solving the Fractions Problem: From Research to Classroom		√					√
	Voice and Choice: Tell Me How You Know That!			√				√
Lucenta, Amy	A Strengths-based Approach to Develop Mathematical Thinking						√	√
Macfarlane, Mary	Just the Facts: Helping Students Develop \times/\div Fact Fluency		√					√
McNamara, Julie	Developing Algebra Sense		√					√
Millerick, Melissa	The Rule of 4: One Method to Rule Them All				√			
Merrigan, Paula	Keeping Math Engaging and Fun in TK and K with Math Centers	√						√
Merritt, Ramsey	Making Inquiry-Based Math Instruction Work for Every Student		√					√
	Turning the Tide on Math at Your Elementary School					√		
Meyer, Dan	Math Without Mistakes						√	
	Math Is Power Not Punishment			√			√	
Morrison, Patty	Using Literature in the Math Classroom	√						√
Moss, Diana	Practices for Promoting a Healthy Mathematics Identity					√		√
	Revisiting How to Teach Using Algebra Tiles			√				√
Muller, Eric	Seeing Math Around You: Geometry, Data and Your Vision						√	√
Nank, Sean	10 Strategies to Foster Equitable Interactions and Belonging						√	√
	You Have to Choose: Removing Barriers via Reflective Stories						√	√

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience						Beginning Tchr.
		K-2	3-5	6-8	8-12	Ldshp/Chld	GI	
Nickerson, Rob	Be Clear: Precise Language for Addition and Subtraction	√						
	Persevere: It's Not Just for Mathematics!		√					√
Novelli, Barbara	Using Games to Teach and Assess in the Primary Classroom					√		√
Ortega, Courtney	Who's Learning During Learning Walks					√		
Pariso, Rebecca	Using Desmos to Support a Universal Design for Learning						√	√
Phillips, Jamie	Maximize Your Math Block	√						√
Pittock, Janet	Success is in the Numbers: Building Fact Fluency		√					√
Raman, Sandhya	Social Justice + Mathematical Modeling = Meaningful Learning			√				√
Ramer, Elaina	Statistics for All: Socially Relevant Lessons				√			√
Ray, Solana	Beautiful Mathematical Explanations in the Primary Classroom	√						√
Raygoza, Mary	Social Justice Math: Beginning with Beloved Community			√				√
Rendon, Sharon	How Might We Rethink Intervention?			√				√
Restani, Rachel	Using Student Explanations as a Tool to Understand Fractions		√					√
Reyes, Jessica	Reimagining Fluency Through Powerful Routines			√				√
Roberts, Christine	Exploring Children's Mathematical Thinking	√						√
Rossi Becker, Joanne	Content Connections and the Drivers of Investigation (Framework)				√			√
Ruby, Stephen	Engaging Warm ups Through Puzzles and Games				√			√
Sagun, Theodore	Leveraging Routines to Broaden Participation			√				√
Salisbury, Kurt	Telling a Math Story Using Desmos						√	√
Sgroi, Richard	Fortifying the First Five: Do Nows Done Better!				√			√
Shelley, Amanda	Shifting Mindsets from Remediation to Accelerating Learning					√		√
Smith, Ruth	Equity for ALL = Math x Cultivating Safety2		√					√
Sola, Tracy	K-2 Card Sort Power: Collaborative Mathematics for All	√						
	Talk Data to Me: Data Talks for Connection and Empowerment			√	√			
Standiford, Gail	Algebra Tiles: A Great Way to Build Conceptual Understanding			√				√
Stern, Michael	Rainbow Logic		√					√
	Using Puzzles to Teach Problem Solving			√				
Sutton, Kim	Need Ideas for Improving Math Working Memory?		√					√
	Number Sense Games to Dazzle Learners!	√						√
Szoke, Noam	Math Content Connections: Powerful Progressions Activities						√	√
Thompson, Meagan	Connecting Big Ideas into a Web of Mathematical Design			√				√
Tran-Zwijnsen, Leim	An Approach to Equitable Grading in Math Courses			√				
Tuska, Agnes	Multiplication Without the Multiplication Table? Yes!					√		√
Vriesman, Robert	Teaching Mathematics: An Intuitive Approach				√			√
Williams, Cathy	Making Connections Through the Big Ideas of the California Math Framework				√			
Wright, Hilda	Non-Curricular Tasks for the Thinker			√				√
	Math Talks: Using Visuals to Build Confident Mathematicians	√						√

California Mathematics Council — North
CERTIFICATE OF ATTENDANCE

is hereby granted to

in recognition of attendance and participation at the

*CMC-N Mathematics Conference at Asilomar
Pacific Grove, CA | December 2–4, 2022*

Mary Ann Sheridan
Mary Ann Sheridan, CMC-N President



Zip-up hoodies, long and short sleeve shirts

displaying this year's Asilomar Mathematics conference logo will be available for purchase in Merrill Hall, Friday and Saturday. Don't miss your opportunity to bring home a memento of your conference participation.



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CALL FOR SPEAKERS

CMC-North 66th Annual Conference

Asilomar and Pacific Grove Middle School, Pacific Grove

Pathways to Mathematical Power

December 1–3, 2023

Proposals will be accepted online at <https://www.cmc-math.org/north-speakers> from January 30 to May 1, 2023. We welcome new and returning speakers to submit proposals. Speaking at a conference is a great way to share your ideas and expertise with your colleagues.

For further information, please contact: Beth Baker at northprogram@cmc-math.org.

CMC STUDENT ACTIVITIES TRUST

Tax Deductible Contribution

Remember your year-end tax deductible contribution to the CMC Student Activities Trust Fund. So far we've spent \$200,000 to support student activities throughout California since 1983. All contributions should be mailed to:

Chris Tsuji
CMC Student Activities Trust Fund
670 Choctaw Drive, San Jose, CA 95123

Applications

Many of the past activities supported have been math fairs and various math contests, however funds are not limited to these two type of events. For information on how to apply for these funds to support student activities in mathematics, visit www.cmc-math.org/awards or www.cmc-math.org/awards-grants-scholarships or contact Brian Lim at blim128@yahoo.com

Exhibitors

Company	Merrill Hall	Company	Merrill Hall
Amplify	904-905	First Time Attendees	A01
Bedford, Freeman & Worth	G01	Get More Math	902
brising.com	704-705	Greenfield Learning Inc	F01
California Jump\$tart	D01	hand2mind	204-205
California Retired Teachers Association	303	Heinemann	502-503
Carnegie Learning	J01	Houghton Mifflin Harcourt	601-602
Center for Mathematics and Teaching	701	Imagine Learning	E01
CMC-North T-shirts	201-202	McGraw Hill	103-105
College Board	901	MidSchoolMath	B01
ComMuniCator	401-402	National Council of Teachers of Mathematics	301-302
CPM Educational Program	804-805	National Geographic Learning/Cengage	1001-1003
CSU Monterey Bay	A01	Nearpod	903
CSU/UC Mathematics Diagnostic Testing Proj.	1004	NextGenMath, LLC	C01
Curriculum Associates	405	PeerTeach	603
DreamBox Learning	102	Savvas Learning Company	801-803
EAI Education	504-505	ST Math, Created by MIND Research Institute	703
Ed Gems Math	H01	STEMscopes	403-404
EdTech Games	1005	Texas Instruments	304-305
Educational Math Games	501	The Math Learning Center	604-605
ExploreLearning	101	TouchMath	702

Merrill Hall at Asilomar
Friday, 1:30-7:30pm **and** Saturday, 7:30am-4:30pm
Saturday, drawings start at 12 noon

Exhibits close promptly at times listed above so visit early!

Zip-up hoodies, long and short sleeve shirts

displaying this year's Asilomar Mathematics Conference logo will be available for purchase in Merrill Hall, Friday and Saturday. Don't miss your opportunity to bring home a memento of your conference participation.



Name badges must be worn at all times while attending the conference. Badges are required for entry into the sessions and the exhibit hall.

WIN AN AWESOME PRIZE!

Bring the six tickets included with your registration sheet to Merrill Hall. Check out the exhibits and choose which drawing boxes to drop them. Thanks to the exhibitors offering various prizes! Make sure to check your texts, the app, or the exhibits Saturday afternoon to see if you've won.

Must pick up prize by 4:00pm!



@CAMathCouncil

S T A G E

Women room Downstairs	A01 New To Conference	CSU Monterey Bay	B01 MidSchool Math	C01 NextGen Math	D01 California Jump Start	H01 Ed Gems Math	J01 Carnegie Learning
101 Explore Learning	201 CMC-N T shirts	301 National Council Teachers	401 ComMuniCator	501 Education Math Games	601 Houghton Mifflin	801 Sawvas	1001 National Geographic
102 DreamBox Learning	202 CMC-N T shirts	302 of Mathematics	402 ComMuniCator	502 Heinemann	602 Harcort	802 Learning	1002 Learning
103 McGraw	203	303 California Retired Teachers	403 STEM scopes	503 Heinemann	603 Peer Teach	803 Company	1003 Cengage
104 Hill	204 hand 2	304 Texas	404 STEM scopes	504 EAI	604 The Math	804 CPM Educational	1004 CSU/UC MDTP
105 Pub	205 mind	305 Instruments	405 Curriculum Associates	505 Education	605 Learning Center	805 Program	1005 EdTech Games
Men Room downstairs			E01 Imagine Learning		F01 Greenfield Learning Inc.		G01 Bedford Freeman & Worth

It is time to nominate those individuals who might be recognized for their contributions to mathematics education. CMC has three awards:

1 The **George Polya Memorial Award** may be conferred upon a teacher K–16, who has been deemed as an outstanding teacher of mathematics over a sustained period of time, has supported CMC activities, has been an active participant in CMC, and has high visibility throughout the state of CA.

2 The **Edward Begle Memorial Award** may be conferred on an educator who has, for a sustained period of time, been supportive of CMC activities, has offered continual encouragement, and has been actively involved in California mathematics.

3 The **Walter Denham Memorial Award** may be presented to a person who is recognized as an advocate for mathematics education, not only at the local level, but also at the broader state and national levels.

For more information about the nomination process, check the CMC-Math website under Awards and Recognition. Nominations are due September 1, 2023.

2022 PAEMST Award | Finalists

The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) are the nation's highest honors for teachers of mathematics and science. Since 1983, more than 5,200 teachers have been recognized for their contributions in the classroom and to their profession. This year the state panel has selected three K-6 teachers to go forward as finalists in mathematics and computer science. A national panel of distinguished mathematicians and educators make the final recommendation to the White House and one of the three will be selected to receive the award for California. The three finalists are:



Anamarie Buljan

Anamarie (Mia) is second grade teacher at Fairview Elementary School in the Hayward Unified School District. She has been teaching for twenty-five years. She has been a district Math Coach as well as the Coordinator of Professional Development and the Director of Primary Education for the Silicon Valley Mathematics Initiative. Mia has written the yearly Tool Kits for teachers to guide the analyzing of student work for the primary MARS assessments. She has provided professional development at summer institutes in California, Oregon, and Chicago. Her teaching has been featured on the insidemathematics.org website featuring her elementary formative assessment lessons and how to set up a classroom for math talks. Mia was Teacher of the Year in the Hayward Unified School District (2019–2020) and was a previous PAEMST California State Finalist in 2016 and 2020. The topic she chose for her lesson was finding strategies to interpret products of whole numbers.

Therisa Cash

Therisa is a third-grade teacher at Casita Center for Technology, Science & Math in the Vista Unified School District. She has been teaching for twenty-nine years and has an International Baccalaureate Certificate in Teaching and Learning. She has served as a master teacher, an induction mentor, a district mentor, and a site math coach. Therisa conducted professional development workshops in her district as well as led several day long workshops for the National School District in San Diego County. She has worked with the Irvine Math Project. Therisa was also a teacher leader for the statewide Next Generation Science Standards early implementer initiative. The concept of area is the focus of Therisa's lesson with the students working on a problem of designing a room.

Leslie Whitaker

Leslie is a third-grade teacher at Esencia Elementary in Rancho Mission Viejo in the Capistrano Unified School District. She has been teaching for twenty-two years and was also a Math TOSA in the Capistrano Unified School District. Leslie has worked with a team at the Orange County Department of Education to provide professional development in Cognitively Guided Instruction for TK–5 teachers. She has also supported many student teachers. Leslie has presented at multiple conferences including CMC South as well as the CGI Biennial Conference in 2015. She also wrote Canvas third grade math lessons for CUSD Distance Learning. These lessons included fact fluency lessons, number sense routines and problem solving. Leslie was a previous PAEMST California State Finalist in 2020. The topic for her video lesson was comparing fractions by reasoning about their size, number of parts and relationship to benchmarks.

For more information about awards, or to nominate, visit Presidential Awards at cmc-math.org/paemst-awards

If you know a great math teacher, go to the PAEMST portal to nominate a 7th–12th grade teacher of mathematics or computer science for the 2023 award. To nominate a teacher or to download an application visit www.paemst.org. The nomination period is open until January 9, 2023. The application must be completed by February 6, 2023.

Board Members

2022-2023	State	PresidentBruce Grip	PresidentMary Ann Sheridan
		President-Elect.....Bernadette Salgarino	President-Elect.....Tim Weekes
2023-2024	State	SecretaryChristina Lincoln-Moore	Vice President..... Beth Baker
		Treasurer.....Scott Ellingson	SecretaryAlison Nash
2022-2023	North	Treasurer.....Scott Ellingson	Treasurer.....Dennis Kombe
		PresidentBruce Grip	PresidentMary Ann Sheridan
2023-2024	North	Past President..... Christine Roberts	Past-PresidentSarah Ives
		President-Elect.....Bernadette Salgarino	President-Elect.....Tim Weekes
2022-2023	North	SecretaryChristina Lincoln-Moore	Vice President..... Beth Baker
		Treasurer.....Scott Ellingson	SecretaryAlison Nash
2023-2024	North	Treasurer.....Scott Ellingson	Treasurer.....Dennis Kombe
		PresidentBruce Grip	PresidentMary Ann Sheridan
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2022-2023	North	SecretaryChristina Lincoln-Moore	Vice President..... Beth Baker
		Treasurer.....Scott Ellingson	SecretaryAlison Nash
2023-2024	North	Treasurer.....Scott Ellingson	Treasurer.....Dennis Kombe

Calendar of Math Events



March 10-11, 2023

CMC Central Mathematics Symposium

October 28-31, 2023

NCSM Annual Conference, Washington D.C.

October 25-28, 2023

NCTM Annual Conference and Exposition, Washington D.C.

November 2-4, 2023

CMC South Mathematics Conference, Palm Springs, CA

December 1-3, 2023

CMC North Mathematics Conference at Asilomar, Pacific Grove, CA

For information and links to these math events go to:

www.cmc-math.org

Affiliated Groups

Contact your local affiliate to find out more about their organization and become involved at a local level!

Alameda Contra Costa Council of Math Educators
Tim Weekes, timw0890@yahoo.com

California Math Council to the Far North (CMCN ∞)
Reada McConnaughy, rmconnaughy@nuarters.org

Math Educators of Solano County
Linda L Flood, lflood6@comcast.net

Monterey Bay Counties Math Educators
James Schierer, jschierer@smcjuhsd.org

Northern Nevada Mathematics Council
Glenn Waddell, gwaddell@unr.edu

Sacramento Area Math Educators
Dave Chun, dchun@scoe.net

San Francisco Math Teachers' Association
Angelica Trejo-Ortiz, trejo-ortiza@sfusd.edu

Mt Lassen Math Council
Claudia Bertolone-Smith, cmbertolone-smith@csuchico.edu

Santa Clara Valley Math Assoc
Steven Blasberg, steve.blasberg@wvm.edu

Sonoma County Math Council
Josh Deis, jdeis@petk12.org

Exhibits

Be sure to make time in your schedule to visit the exhibits at Merrill Hall. You'll find a remarkable collection of mathematics education books, curriculum materials, teaching resources, games, manipulatives, and technology and services. Exhibit hours allow ample opportunity to explore, try out, and purchase product/services for use in your classroom or to help you meet your career goals. You'll also have the opportunity to get fresh ideas, valuable information and resources and to see demonstrations of how products work. Be sure to check the list of exhibits and map of the exhibit hall on page 31.



California Mathematics Council–Northern Section

Purpose:

CMC-N wishes to encourage creativity and innovation among Northern California educators for the purpose of developing mathematically powerful students.

Who May Apply:

CMC-N members from any public or private school or district whose membership has been paid for the current school year.

Requirements:

- √ Can only apply once per school year
- √ Should have additional sources of funding
- √ Application completed in full

Deadlines:

November 1–up to \$500 **and** March 1–up to \$500

Application:

1. Title Page

- a. Title of Grant
- b. Name of Grant Leader, CMC Member #, home phone and home email
- c. School name, address, fax and email
- d. Grant impact–number of students, teachers and percent members of minorities
- e. Maximum amount requested to implement the grant

2. Description of Materials Use

- a. How will materials be used and with what goals in mind?
- b. Statement of need as related to your students
- c. Projected activities and timeline, if applicable
- d. Impact–Who and how many will be affected?

3. Materials Budget

- a. Items to be purchased
- b. Expected vendor and prices
- c. Additional funding sources available to you
(Grant requests may be only partially funded.)
- d. Total amount requested

4. Approval Signatures

- a. Grant Leader and Building Site Administrator and title

End Report:

Submit a short report to the Mini-Grant committee by the end of the year on how the purchased materials were used and the effectiveness of the purchased materials in order to be considered for a grant in the future.

Apply online:

<https://camc.memberclicks.net/northminigrants>
(application cover page with signatures should be scanned)

NOTE:

- Grant covers materials only, not teacher work time or compensation.
- Only one Mini-Grant can be awarded per applicant per school year.
- Grant is limited to current CMC-N members and to school sites in the CMC-N area.

Stay connected with CMC



www.facebook.com/CAMathCouncil



@CAMathCouncil

IN MEMORIAM

This year CMC lost two integral members of the CMC Organization, both serving as CMC Executive Secretary.

Mike Contino

Mike Contino passed away March 9, 2022. Mike was a middle school mathematics teacher in the Moraga School District, then left the middle school classroom to teach mathematics to prospective teachers as an adjunct professor at CSU Hayward, now CSU East Bay. He also worked with the Bay Area Mathematics Project (BAMP). In the 1970s, Mike began his many years of volunteer service to mathematics education as a member of his local CMC-affiliated group, the Alameda Contra-Costa Council of Mathematics Educators (AC3ME). Mike's involvement in his local affiliate led to his involvement in the California Mathematics Council. One volunteer role after another led Mike to volunteer as registrar for the conference and run for the CMC-North Treasurer position, offices he served in for many years. Mike assisted many conference attendees in untangling their registration problems before sending them on their way to a successful and enjoyable conference. He also greatly streamlined the conference's bookkeeping and registration. In 1991 Mike was awarded the George Polya Memorial Award given to an outstanding teacher who has been an involved member of CMC. Mike continually reinforced the belief that we learn best when we enjoy the process of learning, and showed countless teachers ways to make that a part of their teaching.

To further honor Mike's long service to mathematics education, the California Mathematics Council has posthumously set up a new scholarship to be named The Mike Contino Scholarship. This scholarship is available to University or College professors who work with preservice teachers just as Mike had. They can apply for up to \$2000 in funds to support the costs of bringing a group of preservice teachers to one of the CMC conferences.

<https://camc.memberclicks.net/MikeContinoScholarship#!/>



Gretchen Muller

On October 30, 2022, CMC lost a powerful, passionate, talented, beloved mathematics leader. Gretchen was a long time member of CMC, having served in numerous volunteer positions over the years, and both President and Treasurer of CMC-North. Most recently, Gretchen has served as

Executive Secretary for CMC, providing steady and wise support for all of us in CMC and beyond. Gretchen served many students and their teachers and leaders for decades in her many roles with CMC and the mathematics education community. She has been a classroom teacher, coach, and teacher-leader for over 15 years in the San Francisco Bay Area. In 2010, Gretchen was awarded the CMC George Polya Award for outstanding teaching and involvement with CMC. Some of her accomplishments include developing and coordinating a mathematics performance assessment program across a consortium of 11 districts and supporting the sense-making and implementation of the CCSSM in local districts. She also worked as a facilitator for Illustrative Mathematics and led California Mathematics Festivals workshop facilitator. Gretchen believed each student should have not only access but also the opportunity to learn challenging and rigorous mathematics. She lived the mission of CMC and was a friend, colleague, teacher, mentor and leader to many. She will be dearly missed.

In the coming months, more information will be shared with CMC members regarding how we will further honor Gretchen's outstanding service to mathematics education and the California Mathematics Council.

STAY CONNECTED WITH CMC

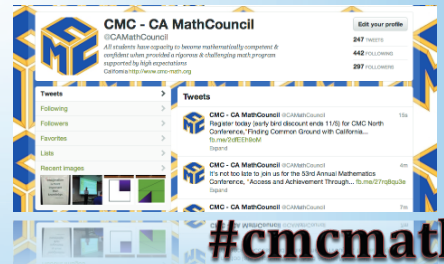
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www.cmc-math.org

CMC-North Conference Committee

Wishes to thank all of the speakers for contributing to an amazing conference.

Thank You

Continuing Education Units

SPECIFICS

Course Title: **California Mathematics Council North Annual Conference**

Course Code: **22F EDU 870B 01**

CEUs: **1.5**

Course Fee: **\$65**

Date: **12/2/2022–12/4/2022**

- Earn 1.5 CEU (Continuing Education Units) for your Asilomar participation.
- Units are from **College of Continuing Education at Sacramento State University**. Generally it cannot be applied toward a degree program, but can be used as:
 - professional growth units for your credential, and,
 - district credit for step advancement. Check with your district regarding its policy on accepting these units.
- Credit will be given in the Spring Semester. Grades will not be available until May 2023. Please do NOT call before that time. After February 1, you may send an email to be sure your materials were received.
- Grades are CR/NC only.
- You must complete each of the requirements below.

REQUIREMENTS

- ✓ Register for the conference.
- ✓ Attend the opening session Friday evening 7:30–9:00 p.m. in the Chapel.
- ✓ Attend at least three sessions on Saturday, visit the exhibit area, and attend a Sunday closing session.
- ✓ Type a paper as described below. Save a tree: single spacing is fine. Include your name, address and phone number on it in case of problems.
- ✓ Complete the Registration Agreement and mail with credit card information or your check for \$65.00 (payable to CSUS College of Continuing Education) with your paper **to the CMC address below by December 31, 2022.**
Do NOT mail to the address in the registration form.

PAPER

1. Submit a two-part paper. In the first part devote a paragraph or more to each session you attended. Include details on the title, speaker, ideas, activities, and theme(s). Then, in the second part, reflect on how the conference affected your thinking about math, How has it affected your classroom? How do you believe it will affect it in the future? What common themes did you see throughout the conference? This part should be at least 1 or 2 pages.
2. If you prefer, the two parts above can be combined into one using a more narrative style.

REMEMBER

The paper must exhibit a great deal of reflection, and must not be just a chronicle of how you spent your weekend.

Mail the registration form, payment, and paper in a single packet by December 31, 2022 to:

**CMC-N, Attn: Brian Lim
P.O. Box 1882
Marina, CA 93933**

Questions: blim128@yahoo.com

Access the Registration Agreement using the QR code below or <https://bit.ly/3DLdGJr>

**Contract Education Program
Registration Agreement** 

For CEU/Non-Credit Courses

Please submit registration form to: College of Continuing Education, 3000 State University Drive East, Sacramento, CA 95819-6103 Attention: Information and Registration Services.
For your convenience you may also phone in your registration to (916) 278-4433.

Registration and payment must be received no later than two weeks following the last class meeting.

Please check with your district office regarding whether or not they will accept these units toward salary advancements.

Refund requests will not be accepted. This policy applies to all non-credit, and CEU courses.

For more information of Continuing Education policy please go to www.cce.sac.edu.

PLEASE PROVIDE THE FOLLOWING INFORMATION:

Name - Last _____ First _____
Home Address (Number, Street, Apt) _____
City _____ State _____ Zip _____
M.A./M.S. Ph.D.

COURSE INFORMATION
5-DIGIT COURSE CODE _____

PAYMENT

Check - payable to CSUS College of Continuing Education
 Visa
 Master Card
 Discover

Card Number _____
Expiration Date _____
Amount _____
Name of Cardholder _____
Cardholder's Signature _____

All courses, instructors, locations and fees are subject to change or deletion without notice.

THE LURIE CENTER SCHOLARSHIP

The California Mathematics Council supports three annual scholarships honoring the memory of Lurie Center who dedicated her career as a teacher to improving the mathematical literacy of students. This award will enable three teachers of color (one from each CMC section) to attend any CMC section conference.

This Lurie Center Scholarship will cover up to \$500 in conference expenses such as room, board, travel, and instructional materials (with no more than \$100 of the award to be used for instructional materials). Each awardee will also receive complimentary conference registration and a one year subscription to the ComMuniCator with CMC membership.

Criteria: ✓ K-14 teacher of color ✓ Teaching assignment includes mathematics ✓ Commitment to help students learn mathematics

The application is due on May 1st each year. Check the CMC website for more information. CMC-South members should also check on The Lurie Center Elementary Teaching Award, which has different qualification criteria.

If you enjoyed this conference and want to attend another CMC section conference, consider filling out an application next year!



Enter to win a **free registration** and **free housing** at next year's conference by completing the **Conference Evaluation** go to <https://bit.ly/AsilomarConfEval>



Your feedback is important to us! Please take a moment to complete the **Speaker evaluation** at <https://bit.ly/AsilomarSpeakerEval>

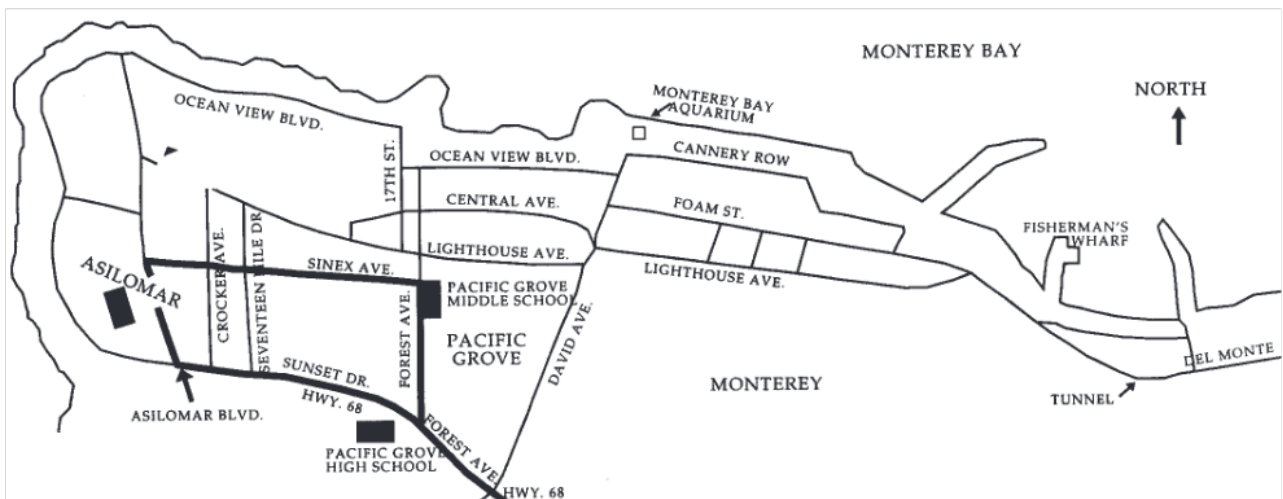
We have made every attempt to provide adequate seating for participants at the conference. However, to ensure your safety and adhere to fire regulations, the number of participants allowed in each meeting room will be limited to the number of seats approved by the Fire Marshall. Anyone sitting on the floor or standing will be asked to leave the room. Please check the Program Matrix for the **seating capacity** of each room. All seats are available on a first-come, first-served basis.

Please stay on the paved pathways that meander through the grounds or the boardwalks that take you on a delightful journey through the dunes. By keeping people off of the vegetation, Asilomar is able to preserve the natural landscape for all to enjoy for many years to come. You might see some paths that look like walking trails, but if they are not paved, they are simply animal trails created by many hooves walking the same route through the grounds.



Thank you very much for your cooperation.

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6

7

8



LODGING	MEETING ROOMS
Afterglow Rooms 801-832	Chapel D5
Breakers East Rooms 821-832	Curlew C4
Breakers West Rooms 833-840	Dolphin C5
Cypress Rooms 717-724	Evergreen F1
Deer Lodge Rooms 101-100	Fred Farr Forum E2
Director's Cottage Rooms 121-120	Heather C4
Embers Rooms 131-132	Kiln E2
Engineer's Cottage Rooms 1202-121	Madrone G3
Forest Lodge Rooms 901-903	Manzanita I & II B4
Guest Inn Rooms 1225-1236	Marlin D4
Hearth Rooms 101-100	Merrill Hall G4
Live Oak Rooms 201-218	Nautilus H4
Lodge Rooms 101-100	Oak Knoll I & II C4
Long View North Rooms 101-100	Oak Shelter F1
Long View Middle Rooms 101-100	Sanderling C6
Long View South Rooms 101-100	Scripps G5
Manzanita Rooms 1001-1002	Surf & Sand G4
Oak Knoll Rooms 108-1024	Toyon B4
Pirates' Den Rooms 501-510	Triton H4
Sand Rooms 605-610	Willow I & II B4
Scripps Rooms 301-323	Whitehead G3
Shores Rooms 709-716	OTHER
Spindrift North Rooms 849-856	BBQ area E6
Spindrift South Rooms 841-848	Crocker Dining Hall F6
Stuck-up Inn Rooms 401-414	Fire Pits H5
Surf Rooms 601-604	Guest Check-In E5
Tea, Tops Rooms 101-120	Hearth Social Hall E5
Whitecaps North Rooms 809-820	Human Resources F1
Whitecaps South Rooms 801-808	Meditation Space 3
Willow Inn Rooms 1025-1036	Mott Training Center G2
Windward Rooms 701-708	Park Ranger Office G1
Woodside Rooms 122-1223	Park Store E5
	Phoebe's Café E5
	Seascape F6
	Swimming Pool 5
	Conference and Event Sales E4
	Viewpoint E4
	Volleyball Court H5
	Woodlands F5
	Yoga Room 3
	PARKING LOTS
	Parking Lot B E5
	Parking Lot C H4
	Parking Lot D F2
	Parking Lot E E3
	Parking Lot F D4
	Parking Lot G D3
	Parking Lot H B3
	Parking Lot J 4
	Parking Lot K B4
	Parking Lot L B5
	Parking Lot M E2
	Parking Lot N H2
	Parking Lot P I3



Asilomar Math Conference Room Guide

A – North Woods (Toyon, Willow, Manzanita, Oak Knoll)

B – View Crescent (Chapel, Curlew, Sanderling)

C – Merrill Hall

D – Sea Galaxy (Nautilus East & West, Triton)

E – Fireside (Afterglow, Embers, Evergreen, Fred Farr, Hearth, Kiln)

