

CMC-N Mathematics Conference

ASILOMAR *2021*

www.cmc-math.org

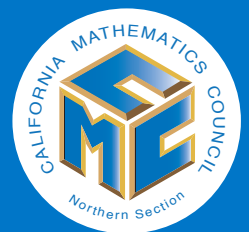


The Magic of Mathematics

Asilomar 2021
California Mathematics Council

64th Annual Conference
December 3-5, 2021

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, 2021 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 Chris Broski.**



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.**

Kick-off | Mini Conference

Speaker	Topic (Session descriptions on page 4.)	Grade Level	Room
Alcott, Annie	Brain Bins and Collections: Strategies to Develop ELD and STEM Thinking	PK-2	Acacia
Northop, Christen	Fractions, Beyond a Numerator and Denominator	3-5	Triton
Mayfield-Ingram, Karen	Dismantling Racism in Mathematics Instruction: A Toolkit	6-8	Nautilus East
Foster, Hallie	Of Course There's Discourse in This Course	9-12	Oak Shelter
Kelemanik, Grace	Design a Reasoning Routine to Develop Mathematical Thinking	GI	Toyon
Lindaman, Brian	The 2021 CA Mathematics Framework: Content Connections, Learning Progressions, and Equitable Instruction	GI	Evergreen

Program | Friday - Sunday

	Time	Event	Location
Friday	3:00-7:00pm	Registration and bag pick up (Mini Conference participants can pick-up their bags at 12:30pm)	Surf & Sand
	6:00-7:00pm	Dinner	Dining Hall
	1:30-7:30pm	Exhibits (materials for purchase)	Merrill Hall
	7:30-9:00pm	Keynote Session: (information on page 5) Michelle Cody Fighting Like Our Lives Depend On It: Creating Space for All Students to See Themselves as "Math People"	Chapel
Saturday	7:00-8:15am	Breakfast	Dining Hall
	7:30am-12:00pm	Registration and bag pick-up	Surf & Sand
	7:30am-3:30pm	Exhibits (materials for purchase)	Merrill Hall
	8:00am-12:00pm	Sessions (matrix begins on page 10, speaker section begins on page 12)	
	9:00am-5:00pm	CMC Community Hub	Surf & Sand
	12:00-1:00pm	Lunch (refer to page 8)	Dining Hall
	12:30-1:30pm	Choosing to See book signing by Dr. Pamela Seda (co-author)	Surf & Sand
	1:00-5:00pm	Sessions (matrix begins on page 10, speaker section begins on page 12)	
	3:00pm	Drawing	Dining Hall
	5:30-6:30pm	New Teacher Social	Fred Farr
6:00-7:00pm	Dinner	Dining Hall	
8:00-10:00pm	Ignite! and President's Party Everyone Welcome!	Merrill Hall	
Sunday	7:30-9:00am	Breakfast (pick-up box lunch)	Dining Hall
	8:00-8:45am	CMC-N Membership Meeting	Surf & Sand
	9:00-10:15am	Morning Keynote Session: Cathery Yeh No Equity Without Everyone: Towards Inclusive Excellence for All	Chapel
	10:15-10:45am	Coffee Break	
	10:45am - Noon	Mid-Morning Keynote Session: Dr. Pamela Seda Seven Strategies to Make Your Mathematics Class More Equitable	Chapel

Kick-off Mini Conference

Friday | Asilomar 1:30 - 4:30

Pre-registration required.

Alcott, Annie

Brain Bins and Collections: Strategies to Develop ELD and STEM Thinking

In this session, we will explore strategies to support language development of all learners, students learning English in particular, as we delve into two inquiry-based math and STEM activities. The activities are called "Brain Bins" and "Collections." In focusing on these two different and adaptable activities, we will explore materials, discuss how to pose questions, highlight language learning, and outline mathematical learning opportunities for young students. The learning opportunities include articulating problems to solve, making decisions, organizing materials, working with a partner or small group, recording and presenting findings while using persistence, independence, and flexibility in the process. PK-2 | PRS | 7 | Acacia

Foster, Hallie

Of Course There's Discourse in This Course

When you reflect your own math classroom, who does the talking? How often do students talk? Does every student talk every day? Do your students listen to each other? This session will focus on strategies for increasing meaningful student discourse in the secondary mathematics classroom. Come prepared to participate in discourse forward math activities that you can immediately begin using in your own classroom. 9-12 | PRS | 4 | Oak Shelter

Kelemanik, Grace

Design a Reasoning Routine to Develop Mathematical Thinking

In this session, we will pull back the curtain on our process for designing reasoning routines. We will share our sources of inspiration and the six-step process we use to create routines that foster mathematical thinking in all students. Participants will collaborate with colleagues to draft their own reasoning routine using the six-step process. GI | MITI | 8 | Toyon *Co-presenter: Amy Lucenta*

Lindaman, Brian

The 2021 CA Mathematics Framework: Content Connections, Learning Progressions, and Equitable Instruction

To address current needs of California educators, the 2021 edition of the Framework includes several new emphases and types of chapters. Several foci feature prominently in the new Framework, including: Equitable Learning, Learning Progressions, Content Connections and Drivers of Investigation, Big Ideas, and Supporting and Empowering Teachers. An overview of how these themes are presented in the new Framework will be provided, and session participants will be given time to explore activities and engage in discussions which bring to life each of these important aspects. GI | PRS | 5 | Evergreen

Mayfield-Ingram, Karen

Dismantling Racism in Mathematics Instruction: A Toolkit

This is an extended session to reflect on our own biases in order to transform our instructional practice and shift our instructional beliefs and practices toward antiracist math education. The activities and discussions in this session are based on the framework for deconstructing racism in mathematics included in Stride 1 of A Pathway to Equitable Math Instruction: Resources and guidance to support Black, LatinX, and Multilingual students to thrive in grades 6-8. This equity toolkit is published by the Education Trust West. The framework offers essential characteristics of antiracist math educators and critical approaches to dismantling white supremacy in math classrooms by visualizing the toxic characteristics of white supremacy culture (Jones and Okun 2001; dismantling Racism 2016) with respect to math. By centering antiracism, we model how to be antiracist math educators with accountability.

6-8 | PRS | 16 | Nautilus East *Co-presenters: Celine Liu, Carmen Whitman, Emma Trevino and Harold Asturias*

Northrop, Christen

Fractions, Beyond a Numerator and Denominator

Do you think fractions are confusing/abstract/difficult? Do you feel nervous teaching fractions to your students? As research has shown, we learn best by "doing"! Engage in this hands-on session broadening and deepening your understanding of fraction sense in a way you may not have ever experienced before. We are moving away from fractions circles, tiles, and labeled items that give the fractional size to open our minds to the endless possibilities of developing fraction understanding through Cuisenaire rods. Participants will engage in the activities as a learner to best enable application with our students. You will leave the session with fraction progression understanding, lessons and resources to support classroom implementation, and your very own set of Cuisenaire rods to take home. 3-5 | PRS | 15 | Triton



Chapel | 7:30-9:00

Michelle Cody, is a 6th grade math teacher in San Francisco. A public school graduate, she continued her education at City College of San Francisco, Howard University for undergrad and University of San Francisco for her Masters in Urban Education and Social Justice. She has spent the last 20 years working with middle school students and is a firm believer that Social Justice education can change the way that students engage with math.

Fighting Like Our Lives Depend On It: Creating Space for All Students to See Themselves as “Math People”
We live in a world where people can say things like, “I am NOT a math person” or “I’m just not good at math.” This toxic mindset is pervasive inside of our

classrooms. Students are counting themselves out before they even can engage with the math learning. In this talk, we will look at current practices, mindset shifts, lessons, and reinvigorate what we know to be true. We are in the fight of our lives for our students.

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.



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

CMC is requiring the wearing of masks indoors except while eating and drinking.





Merrill Hall | 9:00-10:15

Cathery Yeh is an assistant professor of mathematics education and the founding co-director of the Ethnic Studies Program at Chapman University. Her scholarship examines the intersections of race, language, and disability and in developing approaches to supporting mathematics teachers to develop teaching practices that draw on student strengths, particularly for students across language and ability status. Dr. Yeh has 20+ years of experience in K-12 and higher education settings working with future and experienced teachers and published over 40 articles and three books: *Reimagining the Mathematics Classroom: Creating and Sustaining Productive Learning Environments*, *Catalyzing Change in Early Childhood and Elementary Mathematics*, and *Upper Elementary Mathematics Lesson to Explore, Understand, and Respond to Social Injustices*.

No Equity Without Everyone: Towards Inclusive Excellence for All

Culturally responsive mathematics invites all students into mathematics as their ways of thinking, reasoning, and living are attended to and honored. This session extends application of culturally responsive mathematics to explicitly account for both racial and disability justice. Learn key components to combine culturally responsive teaching and Universal Design for Learning to ensure asset-based mathematics teaching for all. Resources to promote classroom and school-based collaborative inquiry projects will be explored.



Merrill Hall | 10:45-noon

Dr. Pamela Seda is an educational consultant with over 30 years of educational experience. She currently lives in metro Atlanta with her husband and four adult children. She is the owner of Seda Educational Consulting, creator of The VANG Game math card game, and co-author of the book, *Choosing to See: A Framework for Equity in the Math Classroom*. Dr. Seda received a Bachelor's degree in Math Education from the University of South Florida, a Master's degree in Math Education from Georgia State University, and a Ph.D. in Teaching and Learning with a concentration in Math Education from Georgia State University. She has held various positions in mathematics education including high school mathematics teacher, math instructional coach, college math instructor, and district math supervisor. Dr. Seda is passionate about changing how students experience mathematics, especially those from marginalized groups, and advocates for mathematics instruction that develops all students as mathematical thinkers and problem-solvers.

Seven Strategies to Make Your Mathematics Class More Equitable

For too many underserved students, mathematics means confusion, failure, heartache, and feeling inadequate. Rather than risk failure, they simply choose not to "play" the game of school. In this presentation, participants will learn to use strategies of an equity pedagogy framework for engaging all students.

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, 7:30-10:00 | Merrill Hall

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?

CMC is requiring the wearing of masks indoors except while eating and drinking.



Ignite! (April Goodman-Orcutt, emcee), and President's Party

Come join us at our President's Party, sponsored by **CMC-North** (appetizers and no-host bar), and the final Ignite! What is Ignite? This fast-paced, fun, thought-provoking, high-energy series of 5-minute talks with 20 self-advancing slides by people with the guts to get onstage and talk about something they are passionate about!

Saturday, 8:00-10:00 | Merrill Hall

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

Co-sponsored by CMCN, Hand2Mind, and CSU MSTI (Mathematics and Science Teacher Initiative) Funds. Come to network, catch-up, and reenergize. We'll have drinks, snacks, and a drawing.

Saturday, 5:30-6:30 | Fred Farr Forum

CMC-Hub will be open Saturday, 9:00am-5:00pm in Surf and Sand. 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!

T-shirts, sweatshirts and aprons

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

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CONFERENCE VOLUNTEERS

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Julie Swenson

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Paul Jaurez

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

Onsite Registration
Jean Simutis

CMC Hub
Joan and Rick Easterday

Ignite!
April Goodman-Orcutt, Julie Swenson

Conference Program
Connie Anderson

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 - 3:30pm

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 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. For participants staying off-grounds a limited number of meal tickets will be available for purchase at the Asilomar front desk.

T-shirt, Sweatshirt Sales and Aprons

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

Help Protect the Vegetation

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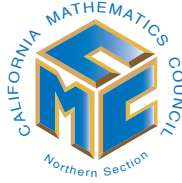
Thank you very much for your cooperation.

Thank you to this year's math conference sponsors.



CMC-North | 2021 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!**

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>



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CALIFORNIA MATHEMATICS COUNCIL

how to use twitter



Connect to the best faculty lounge around.

If you don't already have a Twitter account, consider signing up for one. There is a thriving community of mathematics educators engaging in conversations that you might enjoy and could benefit from your contributions.

Keep your eye on the hashtag #cmcmath before, during, and after the conference to see what people are talking about and keep up with any announcements or special events. Stay connected to our math world through Twitter!



Join the conversation. Share some of the great things you do in your classroom and learn what others do in theirs. Keep the discussions you start here going long after the conference is over and the tweets have been posted.



Not ready to jump in? It's okay to just watch and listen in. There is a lot to consider and learn from the conversations and chats happening all the time. Read as much or as little as you like. It's ok.



Connect to others attending the conference. Grow your personal network by following presenters and the people you meet during the conference. Teaching is complex and we can do so much better together.



To get started:

1. Create an account.
2. Follow some people (We suggest @camathcouncil).
3. Check twitter.
4. Make some awesome new friends.

Max will tell you more: <http://bit.ly/tweetmemaybe>

#cmcmath

@camathcouncil

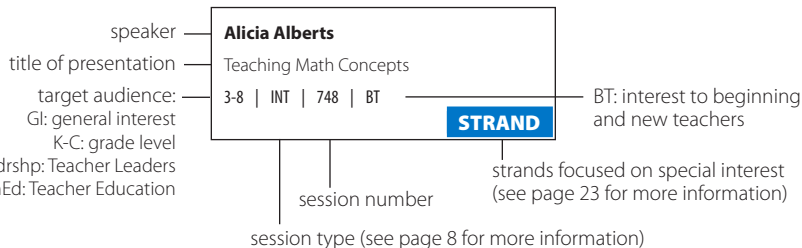
Facility	8:00 - 9:00	9:15 - 10:15	10:30 - 12:00	1:00 - 2:00	2:15 - 3:15	3:30 - 5:00	
CHAPEL	Chapel Seats 200		Patrick Callahan Asset Based Assessments: Dismantling Inequitable Structures GI PRS 200 BT LDRSHP ACCEQ	Mona Toncheff How to Lead with a Focus on Equity Ldrshp INT 300 BT ACCEQ	Steve Leinwand A Game Plan for Invigorating High School Mathematics 8-12 PRS 400 BT ACCEQ	Zachary Champagne Playing the Long Game PK-2 INT 500 BT ACCEQ	
	Hearth Seats 20	Mark Goldstein Why Do I Need to Know This? 6-8 INT 120 BT ACCEQ	Brianna Ruiz Elevating Student Status with Rough Draft Talk 8-12 INT 220 BT ACCEQ	Susan Hoffmier Promoting Authentic Engagement & Rigor with the 5 Practices 6-8 INT 320 BT ACCEQ		Kristie Donovan Math 1 + Foundations = Our Success Formula for Intervention 8-12 PRS 520 BT ACCEQ	
FIRESIDE	Afterglow Seats 20	Solana Ray Beautiful Mathematical Explanations in the Primary Classroom PK-2 PRS 121 BT ACCEQ	Molly Daley Noticing and Responding to Mathematical Moments PK-2 INT 221 BT ACCEQ	Timothy Weekes Rethinking the SMP for Equity and Social Transformation GI INT 321 BT ACCEQ		Beena Menon Getting Students to Appreciate the Beauty of Math 3-8 PRS 521 BT GAMES	
	Embers Seats 20	Patty Morrison Using Literature to Engage Students in Patterns PK-2 INT 122 BT ACCEQ	Edith Spang Engaging Students with Each Other's Ideas 3-5 INT 222 BT ACCEQ	Yetta Allen Gamify using Escape Rooms 8-12 INT 322 BT GAMES		Marcey Winawer Teacher Moves That Lead to Student Engagement and Success 8-12 PRS 522 BT ACCEQ	
	Fred Farr Seats 130	Traci Jackson Math Walks: Mathematical Magic Outside Classroom Walls GI INT 101 BT ACCEQ	Julia Cook More Choice, More Voice GI INT 201 BT ACCEQ	Karl Schaffer Moving in Circles, Dancing with Paper GI INT 301 BT ACCEQ	Joshua Bean Fostering Diversity and Equity Through Sharing Understanding GI INT 401 BT ACCEQ	Kathleen Jalalpour Slow Is The New Fast GI PRS 501 BT ACCEQ	Amy Lucenta Build Student Agency Through Mathematical Modeling 6-8 INT 601 BT ACCEQ
	Kiln Seats 54	Yekaterina Milvidskaia The Magic of Being Students' Thinking 6-8 INT 103 BT ACCEQ	Cate Challen Open Sesame: Unleash the Magic of Your Students' Thinking 8-12 INT 203 BT ACCEQ	Lupe Zamora Engaging Projects that Make the Math "Magic" Come to Life 8-12 INT 303 BT ACCEQ	Sara Moore Visual Representations Magnify Mathematical Understanding PK-2 INT 403 BT ACCEQ	Johnnie Wilson Build a Math Game GI PRS 503 BT GAMES	Henri Picciotto Tiling (tessellation): A Springboard for Geometry GI INT 603 BT ACCEQ
	Oak Shelter Seats 25	Micheal Marsh Using Manipulatives and Investigations to Teach Geometry 8-12 INT 104 BT ACCEQ	Ned Diamond Python Turtle: The Magical Math Tinkering and Logic Tool 6-8 INT 204 BT ACCEQ	Kristina Dance Introduction to Youcubed's Explorations in Data Science 8-12 INT 304 BT ACCEQ	LaToya Byrd Supporting Culturally Responsive Pedagogy with IM K-5 Math PK-2 PRS 404 BT ACCEQ	Dionne Aminiata Supporting Culturally Responsive Pedagogy with IM K-5 Math 3-5 PRS 504 ACCEQ	Tom Beatini Exploring Functions Through Hands-on Data Collection 8-12 INT 604 BT ACCEQ
	Evergreen Seats 25	Michael Stern Guess My Number 3-5 INT 105 BT ACCEQ	Mardi Gale Coaching/Teaching to Support Understanding & Access Ldrshp PRS 205 BT COACH	Agnes Tuska Productive Struggle with Constructing Divisibility Rules Ldrshp INT 305 BT ACCEQ	Marin Rodriguez Middle School Math Skill Building Using Games and Toys 6-8 MITI 405 BT GAMES MITI	Krystal Carter Using Math to Explore and Design a Homelessness Solution 6-8 PRS 505 BT SOCIAL	Masha Albrecht The Magic of Fractals: Inspiring Student Projects 8-12 INT 605 BT ACCEQ
	NORTH WOODS	Heather Seats 60	Theodore Sagun Using Student Thinking: Tales of a Problem Solving Structure GI INT 102 BT ACCEQ	Chrissy Newell Using Feedback in Desmos to Move Student Thinking Forward 6-8 INT 202 BT ACCEQ	Grace Kelemanik 5 Strategies to Ensure All Students Think Mathematically 3-5 INT 302 BT ACCEQ	Mark Ellis Learning from Teachers Working to Rehumanize Math Learning GI PRS 402 BT ACCEQ	Timothy Weekes Number Talks for Access, Equity, Identity and Ownership GI INT 502 BT ACCEQ
		Scripps Seats 60	Nigel Nisbet The Neuroscience of Deeper Learning GI PRS 106 BT ACCEQ	Gary Eisenberg Singing, Dancing and Playing Through K-3 Mathematics PK-2 INT 206 BT GAMES	Ruth Miller Transform the Way that You Teach Transformations 8-12 INT 306 BT COACH	Barbara Novelli Support Students in Making Sense of the Math They Do! Tchr Ed INT 406 BT ACCEQ	Duane Graysay Strategic Construction of Examples in Mathematics Teaching 8-12 INT 506 BT ACCEQ
		Acacia Seats 24	Richard Sgroi Q: "When Will I Ever Use This?" - A: Financial Applications 8-12 PRS 107 BT ACCEQ		Alvin Mendle Bucky's Jitterbug: Synergetic Magic 6-8 MITI 307 BT ACCEQ MITI	Abigail Bates Building Thinking Classrooms: Beginning the Journey 8-12 INT 407 BT ACCEQ	Monique Zhou GeoGebra Classroom for Formative Assessment in a Digital Age GI INT 507 BT ACCEQ
		Toyon Seats 24	Dean Becker Residuals and R-squared, the Relationship Revealed! 8-12 INT 108 BT SOCIAL	Tanya LaMar The Rise of Data Science 8-12 INT 208 BT ACCEQ	Eric Muller Seeing Math Around You: Geometry, Data and Your Vision GI INT 308 BT ACCEQ	Whitney McMurtry Create Opportunities for Students to Exceed Our Expectations 6-8 INT 408 BT ACCEQ	Kim Kirley Math and Literacy in Your Joyful Primary Classroom PK-2 PRS 508 BT ACCEQ



Facility	8:00 - 9:00	9:15 - 10:15	10:30 - 12:00	1:00 - 2:00	2:15 - 3:15	3:30 - 5:00
VIEW CRESCENT	Marlin Seats 34 Sarah Galasso Creating Intentional Pathways to Readiness Success 8-12 INT 109 BT ACCEQ	Jamie Garner Assessing and Addressing Unfinished Learning with R.A.M.P. GI PRS 209 BT ACCEQ	Nolan Fossum Pillars and Practices: Equity Grading for All Students GI PRS 309 BT ACCEQ	Michael Nordlin A Visual Model to Increase Access to Fraction Concepts GI INT 409 BT ACCEQ	Danielle Curran Equitable Practices Leading to Effective Problem Solvers PK-2 INT 509 BT ACCEQ	Dan Shuster Assessing Probability Using Manipulatives and Technology 8-12 INT 609 BT ACCEQ
	Curlew Seats 34 Elizabeth DeCarli Detracking: Our Continuing Work Towards Equity in SFUSD Ldrshp PRS 110 ACCEQ	Shelley Kriegler Using Opening Problems to Spark Engagement 6-8 INT 210 BT ACCEQ	Helen Chan Soar with Paper Airplanes: Activate Voices in Data Science 6-8 INT 310 BT ACCEQ	Marva McInnis Teaching and Reaching Students in a Diverse Setting PK-2 PRS 410 BT ACCEQ	Shelly Baumann Engaging Tasks to Encourage Student Thinking 6-8 INT 510 BT ACCEQ	Sean Nank Oppression to Success: A student's Journey Through Education GI INT 610 BT
DOLPHIN	Dolphin Seats 34 Risa Wolfson Making Mathematics Magical! 6-8 INT 112 BT GAMES	Joanne Becker The Magic of Mathematical Modeling in Geometry 8-12 INT 212 BT SOCIAL	Phil Daro Math Milestones: Each Grade Math On a One Page Grid of Tasks 3-5 INT 312 BT ACCEQ	Angela Torres Supporting Teachers Leaders to Advocate for Systemic Change Ldrshp INT 412 LDRSHP	Courtney Ortega Let's Energize Around the Way We Synthesize! 6-8 INT 512 BT	Matthew Kim Teaching 3.0: Equitable Teaching in a Post-COVID World 8-12 PRS 612 BT ACCEQ
	Triton Seats 24 Jamie Phillips The Magic of Play: Building Inclusive Mathematics Classrooms PK-2 PRS 115 BT ACCEQ	Jinna Hwang Data Science: A New Avenue for Success in High School Math 8-12 PRS 215 ACCEQ	Jessica Balli Re-Engagement: A Strategy to Move Forward, Not Backwards GI INT 315 BT ACCEQ	Maria McClain Building Confidence and Connections: Student Led AP Readings 8-12 PRS 415 BT ACCEQ	Lissie McAlvey Dear Data Postcards: Engaging SEL, Equity and Art with Stats 6-8 INT 515 BT ACCEQ	C. Bertolone-Smith Partitioning, Iterating, and Unitizing... OH MY! 3-5 INT 615 BT ACCEQ
SEA GALAXY	Nautilus E Seats 24 Gail Burrill Exploring Mathematics Through Data and Data Science 8-12 INT 116 BT ACCEQ	Andrew Byrns The 'R' in CRL GI PRS 216 BT ACCEQ	Rob Nickerson Stepping Toward Addition and Subtraction Fluency PK-2 INT 316 BT GAMES	Eden Murphy Go Dodgers: Exploring Data Through Simulations 8-12 INT 416 BT ACCEQ	Emiliano Gomez Mapping a New Normal with MDTP Diagnostic Data 8-12 PRS 516 BT ACCEQ	Tim Erickson Introducing Data Science and Data Moves 8-12 INT 616 BT SOCIAL
	Nautilus W Seats 24 Steven Abell DragginMath: Structural Semantics on your iPad 8-12 PRS 117 BT GAMES	Megan Sulsberger Teaching About Our World with Math Models and Manipulatives 6-8 INT 217	Carole Greenes Develop Students' Algebraic Reasoning Talents: How and Why! 6-8 INT 317 BT GAMES	Kevin Dykema Productive Struggle + Manipulatives = Success! GI INT 417 BT ACCEQ	Josh Britton Word Problems First: Algebra Strength Through Discovery 8-12 INT 517 BT	Andrew Byrns E-L-L or A-L-L? ELL Strategies for Involving ALL Learners GI INT 617 BT ACCEQ

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.



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.

The Exhibitors – for contributing to your conference experience by bringing new curriculum materials, teaching ideas, technology, products, and free demonstrations to you and your fellow conference goers.

The Staff of Asilomar Conference Grounds – for welcoming conference participants to your site and for your support in making our conference a great success.

Thank You

Abell

Abell, Steven

DraginMath: Structural Semantics on your iPad

This iOS app converts expressions into interactive trees. See how operator precedence really works. Then do algebra by dragging structures on the screen. Commute, associate, distribute, factor, simplify, and solve. Work with exponents, roots, and logs. See and use the rules of algebra in a simple and highly general visualization. Not a function graphing app. Low floor, high ceiling. Fun, but not a toy. Can be considered either a tool or a game. Also makes animated lessons exchanged via email.

8-12 | PRS | 117 | Saturday, 8:00 - 9:00 | Nautilus West

Albrecht, Masha

The Magic of Fractals: Inspiring Student Projects

The presenter shares lessons that connect traditional math topics to fractal geometry. These lessons culminate in student projects that include, baking, coding, jewelry, woodworking, quilt design, film making and poetry. Attendees will receive classroom-tested activities and rubrics, and view numerous samples of the diversity of student project work.

8-12 | INT | 605 | Saturday, 3:30 - 5:00 | Evergreen | BT

Allen, Yetta

Gamify using Escape Rooms

Even the most routine and mundane classes can be spiced up when we insert play and joy. Using simple tools like Google Forms and Google Slides, we can turn a simple review session into an escape adventure. We will start the session by playing in our own escape room, followed by tips on building your own room and other ways to gamify a lesson. Access to a computer may be helpful to try out our escape room but is not necessary.

8-12 | INT | 322 | Saturday, 10:30 - 12:00 | Embers | BT

Baumann

Aminiata, Dionne

Supporting Culturally Responsive Pedagogy with IM K-5 Math

Districts across the country are addressing inequities in math education by implementing culturally relevant and responsive pedagogy. IM K-5 Math is designed to support this effort. In this session, we will highlight design features that support teachers implementing culturally relevant and responsive pedagogy in their classrooms; offer an opportunity for teachers and leaders to review the curriculum with lens, and provide space to reflect on how it can benefit teachers and students.

3-5 | PRS | 504 | Saturday, 2:15 - 3:15 | Oak Shelter

Co-presenter: LaToya Byrd

Balli, Jessica

Re-Engagement: A Strategy to Move Forward, Not Backwards

Do you feel pressure to choose between filling gaps (going backwards) and teaching at the pace of student learning (going forward)? Come learn how to design lessons that engage ALL students by specifically using student voice through their writing and explanations. Participants will see examples from upper elementary and secondary classrooms.

GI | INT | 315 | Saturday, 10:30 - 12:00 | Triton | BT

Co-presenter: Solana Ray

Bates, Abigail

Building Thinking Classrooms: Beginning the Journey

Have you noticed that your students don't share your enthusiasm for math? Do many sit passively or unengaged? 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 | 407 | Saturday, 1:00 - 2:00 | Acacia | BT

Co-presenter: Eric Vallecillo

Baumann, Shelly

Engaging Tasks to Encourage Student Thinking

Boredom is a powerful decelerator to student learning, so engagement is at the core of learning in any setting. This session will focus on strategies to promote engagement and encourage students to build conceptual connections and achieve deeper levels of understanding. Explore how to modify tasks to provoke students to make sense, reason, connect ideas, establish their own ideas, and struggle.

6-8 | INT | 510 | Saturday, 2:15 - 3:15 | Curlew | BT

How To Read The Speaker List

Alberts, Alicia ← speaker
Teaching Math Concepts ← title of presentation
 How to teach students to add. ← description of presentation
 3-8 | INT | 748 | Saturday, 8:00 - 9:30 | Curlew | BT

↑ presentation type ↑ session number ↑ day ↑ time ↑ room ↑ special interest to beginning teachers
 ↑ grade level/target audience

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

CMC is requiring the wearing of masks indoors except while eating and drinking.



Bean, Joshua**Fostering Diversity and Equity Through Sharing Understanding**

Mathematics is truly a universal language. As such it is both equally open for all to learn and encompasses every form of diversity. Through the practice, understanding, and principles of mathematics, we math teachers can promote true equity and diversity. Participants will learn to define equity and diversity in the mathematics classroom so that they can identify and nurture it. Finally, participants will learn techniques which promote understanding and experiences of equity and diversity.

GI | INT | 401 | Saturday, 1:00 - 2:00 | Fred Farr Forum | BT

Beatini, Tom**Exploring Functions Through Hands-on Data Collection**

Let's apply functions to real-world situations! Attendees will participate in classroom-ready hands-on tasks that allow students to collect, analyze, and model data represented by linear, quadratic, and exponential models. These activities pose purposeful questions, facilitate meaningful discourse, and allow students to explore consequences while promoting reasoning and problem solving.

8-12 | INT | 604 | Saturday, 3:30 - 5:00 | Oak Shelter | BT

Becker, Dean**Residuals and R-squared, the Relationship Revealed!**

We will explore a small data set and see the fairly simple mathematical connection between the residuals of a regression line and r-squared. Participants will leave with a clear idea of what the "%" in r-squared refers to. Several easy to use classroom activities exploring regression will be presented.

8-12 | INT | 108 | Saturday, 8:00 - 9:00 | Toyon | BT

Becker, Joanne**The Magic of Mathematical Modeling in Geometry**

Participants will engage in several activities involving mathematical modeling in geometry, including one involving an important social justice issue. The session will be interactive, with an overview of what mathematical modeling is, and active engagement of participants in solving problems in geometry that involve mathematical modeling.

8-12 | INT | 212 | Saturday, 9:15 - 10:15 | Dolphin | BT

Bertolone-Smith, Claudia**Partitioning, Iterating, and Unitizing... OH MY!**

During this session, we will discover and apply three key fraction actions to teach our students: partitioning, iterating and identifying the unit. Together, we will practice these actions in multiple fraction contexts: paper folding, number lines, pattern blocks, Cuisenaire rods, problem-solving, and tape diagrams. Make modeling and explaining fraction tasks easier with partitioning, iterating, and unitizing! Come join us to investigate and learn how to make teaching fraction magical!

3-5 | INT | 615 | Saturday, 3:30 - 5:00 | Triton | BT

Co-presenter: Dr. Diana Moss

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.

Britton, Josh**Word Problems First: Algebra Strength Through Discovery**

Do you teach the slope formula? How about $y = mx + b$? While these are fine tools for Algebra, they are often brain-killers as presented in Algebra classrooms. Students learn to plug in numbers without any sense of meaning. Let's change this! This session explores a curricular sequence that fosters student discovery of Algebraic tools and reasoning.

8-12 | INT | 517 | Saturday, 2:15 - 3:15 | Nautilus West | BT

Buckner, Barbie**NASAs Scale of Discovery: Fractions & Ratios of the Universe**

Come explore applications of ratios and fractions with hands-on aligned activities. Engage with space and our universe as you apply scale to distance, time, and size. Learn how to apply the ratios from our solar system to your classroom and beyond.

6-8 | MITI | 607 | Saturday, 3:30 - 5:00 | Acacia | BT

Burrill, Gail**Exploring Mathematics Through Data and Data Science**

Too often students see mathematics as unrelated to their world. Real data can motivate all students to investigate and make conjectures about mathematical relationships involved in contexts such as herd immunity, median incomes for men and women, changing levels of CO₂ in the atmosphere or even rating professional football players. With technology and some simple coding commands, every student can be engaged in the "magic of mathematics," using it to model the world in which they live.

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

Byrd, LaToya**Supporting Culturally Responsive Pedagogy with IM K-5 Math™**

Districts across the country are addressing inequities in math education by implementing culturally relevant and responsive pedagogy. IM K-5 Math™ is designed to support this effort. In this session, we will highlight design features that support teachers implementing culturally relevant and responsive pedagogy in their classrooms; offer an opportunity for teachers and leaders to review the curriculum with this lens; and provide space to reflect on how it can benefit teachers and students.

PK-2 | PRS | 404 | Saturday, 1:00 - 2:00 | Oak Shelter | BT

Co-presenter: Dionne Aminata

Byrns, Andrew**E-L-L or A-L-L? ELL Strategies for Involving ALL Learners**

Amplify, Don't Simplify! Learn ways to invite every student to the mathematics table with language strategies that encourage students to be doers and communicators of mathematics. Workshop based on research from NCTM's "Beyond Good Teaching."

GI | INT | 617 | Saturday, 3:30 - 5:00 | Nautilus West | BT

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 Standards for Mathematical Practice call for.

GI | PRS | 216 | Saturday, 9:15 - 10:15 | Nautilus East | BT

Callahan, Patrick**Asset Based Assessments: Dismantling Inequitable Structures**

Many assessments yield predictable racialized outcomes. We argue that this is because the instruments are narrowly focused and deny opportunities for student voice and agency. We will share examples and frameworks to change this.

GI | PRS | 200 | Saturday, 9:15 - 10:15 | Chapel | BT

Carter, Krystal**Using Math to Explore and Design a Homelessness Solution**

What does it feel like to be without reliable shelter? How do people find themselves in that situation? What is a possible solution? Learn about a design-thinking project that addresses these questions through a math lens while introducing Silicon Valley students to their city's tiny homes for the homeless initiative. The teacher will take you through two iterations of the project and share resources, takeaways, and sample student work. <https://sites.google.com/view/tiny-homes/home>.

6-8 | PRS | 505 | Saturday, 2:15 - 3:15 | Evergreen | BT

Challen, Cate**Open Sesame: Unleash the Magic of Your Students' Thinking**

We will discuss ways in which closed mathematical problems can be opened up to create opportunities for more creative student thinking, productive struggle and rich mathematical discussions. Sometimes we give students narrow computational activities and call them "problems", restricting their ability to demonstrate the breadth of their mathematical thinking. If we want students to engage in discourse in mathematics we need to give them something worth talking about!

8-12 | INT | 203 | Saturday, 9:15 - 10:15 | Kiln | BT

Co-presenter: Yekaterina Milvidskaia

Champagne, Zachary**Playing the Long Game**

Two years ago, I returned to the classroom, and I've learned that teaching mathematics is a long game. This session is all about building positive math identities in each and every student by understanding that a student's mathematical journey is much longer than one day, week, month, or year. We'll examine how to play the long game by learning my four core beliefs about teaching mathematics and engage in mathematical routines and tasks that highlight these beliefs.

PK-2 | INT | 500 | Saturday, 2:15 - 3:15 | Chapel | BT

Chan, Helen**Soar with Paper Airplanes: Activate Voices in Data Science**

This session uses the world paper airplane championship to launch an exploration that promotes equitable mathematics teaching practices and applies the "statistical and data science investigation process" as recommended in the new CA Math Framework.

6-8 | INT | 310 | Saturday, 10:30 - 12:00 | Curlew | BT

Co-presenter: Julian Rojas

CMC is requiring the wearing of masks indoors except while eating and drinking.

**Cheng, Jenny****Transcend Awareness of Social Justice: Take Action!**

Explore the Mathematics for Social Justice Toolkit! The Toolkit includes implicit bias/racism scenarios and has guidance for how to respond/take action to counteract similar situations. This session will raise awareness of how inequity might be couched in language and actions in which biases might be hidden, but also promote actions that participants can take to confront such inequities and work to change systemic practices that inhibit students' mathematics achievement and participation.

Ldrshp | INT | 620 | Saturday, 3:30 - 5:00 | Hearth | BT

Co-presenter: Denise Green

Cook, Julia**More Choice, More Voice**

Helping students find their voice is a fundamental habit that needs to be promoted and established in the classroom. This workshop will leverage the research on how giving students choice in the classrooms empowers them to find their voice and become active, engaged members of the classroom community. Walk away with resources to make this happen in your room.

GI | INT | 201 | Saturday, 9:15 - 10:15 | Fred Farr Forum | BT

Co-presenter: Erin Brand-Delgado

Curran, Danielle**Equitable Practices Leading to Effective Problem Solvers**

Come learn about effective and equitable teaching strategies to engage ALL students in persevering, overcoming "stuck points", and engaging in discourse while problem solving. See these practices in action and leave with resources to use right away.

PK-2 | INT | 509 | Saturday, 2:15 - 3:15 | Marlin | BT

Daley, Molly**Noticing and Responding to Mathematical Moments**

Children naturally make use of mathematics as they play, explore, and observe the world around them. As teachers and caregivers, how can we strengthen our capacity to notice and respond to math moments, even when they are unexpected? This session will outline strategies to look and listen for math thinking while observing children in any setting. We will discuss how adult responses in these informal moments can influence children's self-perceptions and developing attitudes about mathematics.

PK-2 | INT | 221 | Saturday, 9:15 - 10:15 | Afterglow | 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.



#hashtag **CMCMATH**

Dance, Kristina**Introduction to Youcubed's Explorations in Data Science**

In this workshop we will share how youcubed's new curriculum is bringing high school mathematics into the 21st century with Data Science. We will share tasks & teaching strategies to empower and engage ALL students online and in-person. This will be an interactive workshop where teachers dive into data science content through meaningful projects. We will introduce content that can be used in a year long data science course or be integrated into other courses in mathematics and beyond.

8-12 | INT | 304 | Saturday, 10:30 - 12:00 | Oak Shelter | BT

Co-presenter: Estelle Woodbury, Montse Cordero

Daro, Phil**Math Milestones: Each Grade Math On A One Page Grid Of Tasks**

We will introduce you to an innovative set of tools to improve mathematics achievement and strengthen mathematical identity among diverse communities of Black students, English learners, and students in poverty. By engaging with the grids, teachers deepen their understanding of the mathematics they are teaching, learn to make critical and practical decisions to use their own curriculum, and prioritize learning. And discover students' assets and use them to teach the grade-level concepts.

3-5 | INT | 312 | Saturday, 10:30 - 12:00 | Dolphin | BT

Co-presenter: Harold Asturias

DeCarli, Elizabeth**Detracking: Our Continuing Work Towards Equity in SFUSD**

San Francisco continues our journey of working towards equitable outcomes based on a premise that all students are brilliant. We'll share the design of our work and how it has changed over time, and we'll use recent data to reflect on our successes and challenges. As a group, we'll discuss resources for anti-racist education that shape our thinking and our work. You'll have time to discuss questions with other educators, and leave with ideas for change in your context.

Ldrshp | PRS | 110 | Saturday, 8:00 - 9:00 | Curlew

Co-presenter: Ho Nguyen

Diamond, Ned**Python Turtle: The Magical Math Tinkering and Logic Tool**

In this interactive session, participants will learn how to use and will play with Python Turtle, the magical tool for tinkering with math and teaching logical reasoning. Python Turtle is very similar to LOGO, the educational programming language designed in 1967 by MIT's Seymour Papert and colleagues. It helped me fall in love with mathematics back in 3rd grade and I think it will do the same for you and your students. Come join us and leave knowing not only how to do basic programming.

6-8 | INT | 204 | Saturday, 9:15 - 10:15 | Oak Shelter | BT

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

**Donavan, Kristie****Math 1 + Foundations = Our Success Formula for Intervention**

The key to our math intervention program is the partnership between two teachers with the fundamental belief that all students can learn at high levels, teaching two classes in concert with each other. This session will outline the model we have created, components we've found most successful, lessons learned, and plans for future improvement. Participants will take away strategies that may be used in any course to honor student thinking, make math accessible, and build confident mathematicians.

8-12 | PRS | 520 | Saturday, 2:15 - 3:15 | Hearth | BT

Dykema, Kevin**Productive Struggle + Manipulatives = Success!**

Rich tasks to engage students in solving and discussing are a vital part of classrooms. Manipulatives can be utilized to help students by providing entry points for all students. Additional strategies will be shared to support productive struggle.

GI | INT | 217 | Saturday, 9:15 - 10:15 | Nautilus West | BT

Eisenberg, Gary**Singing, Dancing, and Playing Through K-3 Mathematics**

Participants will leave this session with ready to use, practical ideas to enhance their K-3 math instruction through songs, dances, and games that their students will ask them to do again and again. Participants will gain an invaluable resource that is easily accessible through YouTube. Participants will leave this interactive, life changing session happy and with a new set of skills to raise the positive climate of their classroom and student mastery of math skills.

PK-2 | INT | 206 | Saturday, 9:15 - 10:15 | Scripps Conference | BT

Ellis, Mark**Learning from Teachers Working to Rehumanize Math Learning**

Learn from the efforts of teachers in several districts to enact elements of culturally responsive math teaching as a way to create more equitable student positioning and participation, engage students' cultural knowledge, and allow students to take ownership of math. You will examine tasks, discuss instruction, and reflect on your own practice.

GI | PRS | 402 | Saturday, 1:00 - 2:00 | Heather | BT

Erickson, Tim**Introducing Data Science and Data Moves**

Data Science is an unavoidable part of today's world—and you might be asked to teach it. In this session, we will explore a short unit to introduce data science to students in algebra or beyond. The unit is free and open source, and uses CODAP, free web-based data analysis software. We will discuss the overall philosophy and arc of the unit, and actually investigate public data—some with a social-justice component. We'll even see genuine student "data stories."

8-12 | INT | 616 | Saturday, 3:30 - 5:00 | Nautilus East | BT

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Fossum, Nolan**Pillars and Practices: Equity Grading for All Students**

As educators, we seek innovative ways to engage students, close gaps between student groups, and motivate all students to demonstrate their brilliance. But many students are too focused on points, while others feel they are unable to succeed. Come learn how a major overhaul of my grading practices led students to reimagine their own math identities and gain confidence to contribute in rich class discussions. Takeaway strategies to transform your grading practices and instruction.

GI | PRS | 309 | Saturday, 10:30 - 12:00 | Marlin | BT

Galasso, Sarah**Creating Intentional Pathways to Readiness Success**

Our students are messy boards, not blank slates. So, how and when do we help students reactivate their knowledge to clarify misconceptions, overcome gaps, and ensure they have the tools they need to be successful with grade-level content? Readiness requires just-in-time opportunities to reactivate prior knowledge, ensuring we honor students' prior knowledge and build their self-efficacy and agency. Join us to discuss strategies to address readiness for all learners.

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

Gale, Mardi**Coaching/Teaching to Support Understanding & Access**

How do we coach/teach for equitable access to content? What dimensions matter? Examine successful coaching models from SVMU & TRU that support teachers to shift their practice giving access to all & deepening understanding. Documents guide PLC talks.

Ldrshp | PRS | 205 | Saturday, 9:15 - 10:15 | Evergreen | BT

Garner, Jamie**Assessing and Addressing Unfinished Learning with R.A.M.P.**

The Readiness Assessments for Math Project (R.A.M.P.) is a set of short, formative assessments that focus on assessing and addressing unfinished learning with a just-in-time, rather than just-in-case, approach. These assessments are freely available for all and span 1st grade through high school. In this session, we will share these assessments and provide guidance on using the data to provide just-in-time mathematics instruction necessary for students to access grade level learning.

GI | PRS | 209 | Saturday, 9:15 - 10:15 | Marlin | BT

Co-presenter: Stacie Doss, Christina Rubalcava, and Lacey Flippen

Goldstein, Mark**Why Do I Need to Know This?**

If students are asking this question maybe you've already lost them. Instead, how can you hook them? A mathematics classroom doesn't have to always be "real world," but it does have to be interesting and engaging. Let's look at some strategies and activities that you can implement so that question doesn't get asked.

6-8 | INT | 120 | Saturday, 8:00 - 9:00 | Hearth | BT

Co-presenter: Cynthia Raff



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

Gomez, Emiliano**Mapping a New Normal with MDTP Diagnostic Data**

We will explore how to use MDTP diagnostic data to understand and bridge Your students' unfinished learning. We will learn how to analyze the diagnostic results formatively and explore instructional strategies to map learning so that students are able to access the math in their current class and develop readiness for the next level. This session is for grades 6-12.

8-12 | PRS | 516 | Saturday, 2:15 - 3:15 | Nautilus East | BT

Co-presenter: Kim Samaniego

Graysay, Duane**Strategic Construction of Examples in Mathematics**

Teaching Mathematics is communicated and learned through examples we use in the classroom. But which examples are most effective? Variation theory (Marton, 2014) suggests that contrasting and comparing across carefully constructed examples can help a student develop understanding of critical features of a concept. In this session participants will review basics of variation theory, consider examples constructed for use in Calculus and Algebra, and construct examples for their own mathematics classes.

8-12 | INT | 506 | Saturday, 2:15 - 3:15 | Scripps Conference | BT

Co-presenter: Dr. Ben Freeburn

Greenes, Carole**Develop Students' Algebraic Reasoning Talents: How and Why!**

Participants will experience three "ready for Monday" games and activities that motivate reading, problem solving, collaborating, and verifying solutions. A free book of puzzles for all who attend!

6-8 | INT | 317 | Saturday, 10:30 - 12:00 | Nautilus West | BT

Co-presenter: Shelley Krieglger

Hoffmier, Susan**Promoting Authentic Engagement & Rigor with the 5 Practices**

Facilitating equitable discourse that leads to better understanding is challenging. The 5 Practices for Orchestrating Productive Mathematics Discussion by M. Smith & M. Stein support teachers in planning purposeful discussions that provide all students with equitable access to cognitively demanding mathematical tasks. Come experience how the 5 Practices shift math authority to students as they build deeper understanding and make connections between multiple approaches.

6-8 | INT | 320 | Saturday, 10:30 - 12:00 | Hearth | BT

Co-presenter: Brianna Ruiz

Hwang, Jinna**Data Science: A New Avenue for Success in High School Math**

CourseKata, a project at UCLA and Cal State LA, provides a free curriculum for statistics and data science as an alternative to the pathway to calculus. Rigorous, computational, and focused on understanding, experiences so far illustrate its potential to reawaken STEM interests in students who have struggled in math. Do some data science, and hear from two districts about their experiences implementing the program.

8-12 | PRS | 215 | Saturday, 9:15 - 10:15 | Triton

Co-presenter: Ji Son

Inglehart, Tracey**Integration of ELA/Math/Social Studies/Social Justice**

This session is for TK-2 and 3-5. Students become more engaged and learning is more meaningful when connections are made. Participants will see several examples of integration of ELA, Math and Social Studies standards with a focus on Social and Racial Justice. Units were designed with Dr. Gholdy Muhummad's Cultivating Genius framework and include Teachers College framework from Black History is American History. Please bring a laptop or other device for accessing digital resources.

PK-2 | PRS | 606 | Saturday, 3:30 - 5:00 | Scripps Conference | BT

Jackson, Traci**Math Walks: Mathematical Magic Outside Classroom Walls**

Explore and engage in playful outdoor math chalk problems. Walk away with resources for finding and creating open outdoor math problems to activate diverse mathematical thinking and discourse (TK-12+) for your school and the greater community.

GI | INT | 101 | Saturday, 8:00 - 9:00 | Fred Farr Forum | BT

Jalalpour, Kathleen**Slow is the New Fast**

International studies show that countries with a slower sequence of topics score higher on tests that measure understanding and problem-solving and increase measures of equity in mathematics education. Come hear about classroom tested, school-wide success in math achievement by slowing down the curriculum and adding depth.

GI | PRS | 501 | Saturday, 2:15 - 3:15 | Fred Farr Forum | BT

Co-presenter: Corrinne Lieu

Kelemanik, Grace**5 Strategies to Ensure All Students Think Mathematically**

Creating classrooms where all students engage in powerful mathematical reasoning requires us to keep the focus on the thinking, step out of the middle of classroom interactions and create more student-to-student discourse, and support productive struggle. In this session, participants will learn five high-leverage teaching strategies that will get and keep all students engaged in meaningful mathematics.

3-5 | INT | 302 | Saturday, 10:30 - 12:00 | Heather | BT

Co-presenter: Amy Lucenta

Kim, Matthew**Teaching 3.0: Equitable Teaching in a Post-COVID World**

Equitable teaching means empowering students to see math as a tool for solving culturally relevant problems. Come ready to experience the activities we developed during COVID that forced us to shift to "Teaching 3.0" to engage/motivate our students.

8-12 | PRS | 612 | Saturday, 3:30 - 5:00 | Dolphin | BT

Co-presenter: Ivan Cheng

Kirley, Kim**Math and Literacy in Your Joyful Primary Classroom**

Let's deepen the mathematical teaching and learning in your K-1 classroom. We will explore the Mathematical Practices, at a primary level, as we focus on projects appropriate for our youngest students. I'll share great, mostly free, resources to help you on your way! Let's bring the fun back to our classrooms!

PK-2 | PRS | 508 | Saturday, 2:15 - 3:15 | Toyon | BT

Kriegler, Shelley**Using Opening Problems to Spark Engagement**

Participants will experience three approachable problems that grow as students deepen their understanding of probability, equations, functions, and graphs.

6-8 | INT | 210 | Saturday, 9:15 - 10:15 | Curlew | BT

Co-presenter: Cynthia Raff

Krow, Chris**Statistics and Probability Through Simulation**

How can probability be taught using some simulation activities? How is probability used in the movie Scooby-Doo? Can a person really smell Parkinson's disease? What is Facial Prototyping? These activities and some discussion will be presented as alternate methods of teaching probability and statistics to students in grades 7-12.

8-12 | INT | 602 | Saturday, 3:30 - 5:00 | Heather | BT

Kwun, Naehee**Social Justice in a Virtual Setting: A Case for Reparations**

In this workshop, the presenters will share their implementation of a social justice lesson on reparations in virtual secondary mathematics classrooms. Participants will engage in the mathematics of reparations and examine student work samples. Participants will discuss the impact of the lesson on student perceptions of mathematics.

8-12 | INT | 600 | Saturday, 3:30 - 5:00 | Chapel | BT

LaMar, Tanya**The Rise of Data Science**

This session covers the Data Science Education movement and the implications for equity and the future of mathematics education. Several states across the US have introduced data science initiatives within K-12 education. California's new 2021 Mathematics Framework includes an entire chapter on the integration of Data Science into mathematics. So, what exactly is data science? Why is it useful for students? And how do we teach it?

8-12 | INT | 208 | Saturday, 9:15 - 10:15 | Toyon | BT

Leinwand, Steve**A Game Plan for Invigorating High School Mathematics**

We all know that since the Common Core, the K-8 curriculum is much stronger. We know that colleges are adopting sensible pathways that expand opportunities. But High School is stuck with little coherent guidance other more of the same, a non-integrated Algebra and Geometry sandwich, far too much attention to obsolete skills and far too little attention to statistics and modeling. The result is an inequitable, out-of-date mess. We'll look why and discuss practical, needed alternatives.

8-12 | PRS | 400 | Saturday, 1:00 - 2:00 | Chapel | BT



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**.

Lucenta, Amy**Build Student Agency through Mathematical Modeling**

When students learn to mathematize their own world, they analyze relevant contexts, critique mathematical models, and develop their own agency and authority. Modeling with mathematics is essential for ALL students and requires repeated and explicit development in inclusive ways. Learn an instructional routine, with embedded strategies to provide access for all students, that builds students' capacity to interpret a real life context and to interpret and analyze a mathematical model of it.

6-8 | INT | 601 | Saturday, 3:30 - 5:00 | Fred Farr Forum | BT

Co-presenter: Grace Kelemanik

Marsh, Micheal**Using Manipulatives and Investigations to Teach Geometry**

Participants will use hinged mirrors to look at polygons and similar triangles, rubber bands to explore dilations, patty paper to look at characteristics of quadrilaterals, coffee filters to fold and find shapes and angles and linear relationships, and other manipulatives to work with interesting problems and develop/apply geometry concepts and review vocabulary. Topics include similarity, triangle heights, transformations, central angles, polygons, area, and more.

8-12 | INT | 104 | Saturday, 8:00 - 9:00 | Oak Shelter | BT

McAlvey, Lissie**Dear Data Postcards: Engaging SEL, Equity and Art with Stats**

This interactive session, inspired by the book "Dear Data," explores how students gain self- and communal awareness via data and art. Most data consumed these days are data visualization "sight-bytes." This project includes traditional statistical analysis and also evolves with our society's emphasis on non-traditional data representations to allow students to create and interpret these types of data pieces while also discovering how data can catalyze equity conversations in a math classroom.

6-8 | INT | 515 | Saturday, 2:15 - 3:15 | Triton | BT

Co-presenter: Frances Elsberry

McClain, Maria**Building Confidence and Connections: Student Led AP Readings**

Calculus students often struggle to make connections between the mechanics of Calculus and the rich and varied contexts to which they apply. In this session, we will discuss an AP Reading process that helps students build connections among applications, confidence in their abilities, and prepares them for the AP Exam. From full class calibration and small group scoring, we build to a full class reading complete with a Reader's report outlining: intent, strengths, needs, and recommendations.

8-12 | PRS | 415 | Saturday, 1:00 - 2:00 | Triton | BT

T-shirts, sweatshirts and aprons 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.

**McInnis, Marva****Teaching and Reaching Students in a Diverse Setting**

This session will help teachers meet the needs of students of color, as well as the economically disadvantaged. As an African America teacher for over 28 years, I have found that a holistic, multi-modal approach to learning is an effective strategy in reaching a diverse population of students. Delivering content by employing a variety of student learning styles can help to support success and mastery. Specific lesson plans, activities, and ideas will also be shared with participants.

PK-2 | PRS | 410 | Saturday, 1:00 - 2:00 | Curlew | BT

McMurtry, Whitney**Create Opportunities for Students to Exceed Our Expectations**

There are good reasons to group students for differentiated instruction. However, tracking and ability grouping will also create unintended limitations. In this session, I will share our school's journey to build a "tiered" assessment style that provides all students with the scaffolding to demonstrate general competency, while also inviting them to dig deeper with their problem solving skills. Join the discussion about how we can open the door to rigor and challenge for all of our students.

6-8 | INT | 408 | Saturday, 1:00 - 2:00 | Toyon | BT

Mendle, Alvin**Bucky's Jitterbug: Synergetic Magic**

Using dowels and tubing, participants will build a floppy geometric structure that can transform into some fascinating 3-dimensional and 2-dimensional forms. Starting with a cube-octahedron, a twist and push will lead to an icosahedron and then a rigid octahedron or diamond. Additional motions create pyramids, stars and more. Popularized by the work of 20th century visionary Buckminster Fuller, this fascinating toy connects to number and provides hands-on access with conceptual underpinnings.

6-8 | MITI | 307 | Saturday, 10:30 - 12:00 | Acacia | BT

Menon, Beena**Getting Students to Appreciate the Beauty of Math**

This presentation is about how one middle school organized a school wide Math Exploration Day to inspire students to explore the beauty of mathematics. Math Exploration Day is an antidote to the stress caused by tests, test scores, tracking, and a performance driven approach to mathematics. All students regardless of their math level participate, fostering a sense that all students can do math. Participants will learn how to organize a Math Exploration Day at their school.

3-8 | PRS | 521 | Saturday, 2:15 - 3:15 | Afterglow | BT

Miller, Ruth**Transform the Way that you Teach Transformations**

Transformations are a thread in the math curriculum from early elementary grades all the way through Geometry and on to Stats and Calculus. We usually teach these through a combination of graphical and symbolic representations, but adding numerical representations allows students to view transformations by looking at a handful of anchor points per function and to quickly visualize the way that these "sets of ordered pairs" are moved around a plane. Matrix representations will also be discussed.

8-12 | INT | 306 | Saturday, 10:30 - 12:00 | Scripps Conference | BT

Milvidskaia, Yekaterina**The Magic of Being Students of Your Students' Thinking**

Students are mathematically brilliant and it is our job to create a learning culture that recognizes and highlights each students' inner mathematician. We will learn how to illuminate the math brilliance in their students through their experience with open mathematical tasks that allows for multiple strategies and exposure to culturally relevant tasks, routines of accountability, and provide examples of how to celebrate the many ways our students demonstrate their various mathematical thinking.

6-8 | INT | 103 | Saturday, 8:00 - 9:00 | Kiln | BT

Co-presenter: Dr. Curtis Taylor

Moore, Sara**Visual Representations Magnify Mathematical Understanding**

When students grapple with mathematics by connecting representations, they develop deeper understanding and agency. This session shares strategies for connecting representations with a focus on the magic of sketches as a tool for young children to share their mathematical thinking. Students record work with manipulatives as well as their own reasoning about problem situations, deepening understanding as they explain their work verbally.

PK-2 | INT | 403 | Saturday, 1:00 - 2:00 | Kiln | BT

Morrison, Patty**Using Literature to Engage Students in Patterns, Prek-1st**

Children need to understand patterning. In California only Pre-K includes patterning standards. As a teacher this concerned me. All students should understand patterns, not just those who went to Pre-K. I will share literature books and follow up lessons with a patterning focus. You can use these through out the year or at the end of the year. Come and get lesson plans ready to go!

PK-2 | INT | 122 | Saturday, 8:00 - 9:00 | Embers | BT

Muller, Eric**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 a bad idea. Groups will obtain and analyze real data with their own eyes using 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 easy to do activities, created at the Exploratorium Teacher Institute will get your students engaged and excited about learning these concepts.

GI | INT | 308 | Saturday, 10:30 - 12:00 | Toyon | BT

Murphy, Eden**Go Dodgers: Exploring Data Through Simulations**

This session will explore a classroom-ready mathematics lesson that investigates data through simulations in a baseball context, modeling principals outlined in the data science chapter of the new CA Framework. The primary goal is to illustrate for teachers how a lesson can be designed so students are justifying their reasoning as they investigate and discover mathematical connections, ultimately thinking and exploring like a mathematician.

8-12 | INT | 416 | Saturday, 1:00 - 2:00 | Nautilus East | BT

Nank, Sean**Oppression to Success: A Student's Journey Through Education**

Come hear the story of a 16 year old girl's journey through school and barriers to success related in part to an undiagnosed disability but also to the structure of the school system, especially during the past year. Discuss with us actionable steps every classroom teacher can take for inclusive student voice in mathematics classrooms, acceptance, and pedagogical strategies to ensure ALL students can learn mathematics. Leave with a personal understanding of what Keiran's journey means to you.

GI | INT | 610 | Saturday, 3:30 - 5:00 | Curlew | BT

Co-presenter: Keiran Nank

Newell, Chrissy**Using Feedback in Desmos to Move Student Thinking Forward**

In this session, we'll dive into the ways Desmos uses feedback to support teaching and learning. You'll experience a lesson from the perspective of both a student & teacher, and consider ways to use different types of feedback in Desmos. From the interpretive feedback built into our activities to the Written Feedback tool for teachers, we're moving past "right" or "wrong" and making way for student growth and brilliance. BYOD!

6-8 | INT | 202 | Saturday, 9:15 - 10:15 | Heather | BT

Co-presenter: Lisa Bejarano, Shira Helft

Nickerson, Rob**Stepping Toward Addition and Subtraction Fluency**

Students learn addition and subtraction strategies to tackle a variety of computation situations. These strategies assist them in being flexible, accurate, and efficient during their process. Explore the progression moving students from counting in kindergarten to reasoning by the end of grade 2.

PK-2 | INT | 316 | Saturday, 10:30 - 12:00 | Nautilus East | BT

Nisbet, Nigel**The Neuroscience of Deeper Learning**

"How do we teach math?" It's a good question, but to answer it we need to ask ourselves something different: "How do we learn math?" 25 years ago, a group of neuroscience researchers set out to find serious answers to this question by looking at spatial-temporal reasoning. Driving this research was the bold idea: What if math could be taught the way the brain learns? Let's discuss the result of this research and how we can provide equitable access to learning tools proven to help all students.

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

Nordlin, Michael**A Visual Model to Increase Access to Fraction Concepts**

Come experience the fusion of two visual models into one: the bar diagram with the number line. We will explore how learners can apply the part-part-whole relationship to fractional quantities, and the potential creative equations one can derive from the model. You'll see how this can be a support for meaningful discourse around the concepts, and its power to foster creativity, as we make sense of the relationships between fractional quantities!

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

#hashtag **CMCMATH**

@CAMathCouncil

Novelli, Barbara

Support Students in Making Sense of the Math They Do!

Our classroom should be a place where we support and celebrate all students in making Sense of the Math they do. Creating a classroom environment that provides this opportunity to be thinkers is rewarding work. Let's spend some time actively engaged in planning and experiencing the elements necessary. We will make a few tools, actively engage in some stimulating math activities and have some fun along the way.

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

Ortega, Courtney

Let's Energize Around the Way We Synthesize!

Have you ever had a lesson that was going amazing, and then the bell rang? You were probably left wondering if kids knew what the mathematical point was. Let's explore ways to synthesize a lesson in ways that keeps student thinking at the center, whether you have 10 minutes, 5 minutes, or 1 minute left in class.

6-8 | INT | 512 | Saturday, 2:15 - 3:15 | Dolphin | BT

Co-presenter: Keely Machmer-Wessels

Phillips, Jamie

The Magic of Play: Building Inclusive Mathematics Classrooms

Inclusion of students with disabilities in the general education classroom is a hot topic on campuses. If we believe that all students can learn, then we must build truly inclusive classroom experiences for all students. This session will use videos, photos, and hands-on experiences to explore play-based instructional practices that can promote mathematical understanding, fluency, and communication among all students in the PK-2nd classroom, and maybe even beyond.

PK-2 | PRS | 115 | Saturday, 8:00 - 9:00 | Triton | BT

Picciotto, Henri

Tiling (tessellation): A Springboard for Geometry

A hands-on session! Tiling the plane (tessellation) enhances the introduction of geometry in middle and high school. It provides opportunities for students to do creative work they take pride in. It connects with art (Escher) and culture (Islamic design). And it provides a rich context for basic geometry (sum of the angles in a polygon, exterior angle theorem, parallels and transversals, regular polygons) and transformational geometry (rigid motions and basic theorems about them).

GI | INT | 603 | Saturday, 3:30 - 5:00 | Kiln | BT

Pickford, Avery

Rethinking Homework: Practice, Pushing & Pondering Problems

Homework—the teachers' way to find out how smart parents are. This session is for teachers who are eager to hear and share ways to rethink the goal and structure of homework, but who do not have the power to eliminate homework or aren't yet comfortable with this idea. Join me in actively exploring a framework for homework I have used in fifth to twelfth grade that goes far beyond 1-29 odd, increasing equity, access, agency, and cognitive demand.

8-12 | PRS | 608 | Saturday, 3:30 - 5:00 | Toyon | BT

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

Ray, Solana

Beautiful Mathematical Explanations in the Primary Classroom

TK-2 students have plenty to say about their mathematical thinking when given the chance; most of it quite entertaining and enlightening! Learn about instructional strategies and a formative assessment protocol designed to give young students opportunities to voice their thinking, refine their explanations, and become powerful, confident communicators in math class.

PK-2 | PRS | 121 | Saturday, 8:00 - 9:00 | Afterglow | BT

Rodriguez, Marin

Middle School Math Skill Building using Games and Toys

This hands on workshop will examine how common, everyday toys like puzzles and nesting dolls can be used to reinforce CCMP #1: Making Sense of Problems/Persevere in Solving Them and teach fundamental middle school math concepts like real number classification. Additionally, using common items found in any middle school classroom, we will create a hands-on game that will make teaching about primes, PF, GCF and LCM fun for all students and engaging for all learning styles.

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

Ruiz, Brianna

Elevating Student Status with Rough Draft Talk

In this session teachers will experience Rough-Draft Talk to see how it encourages students to share mathematics authority by including all class members in a well-structured conversation. Participants will explore how sharing strategies and viewing each other as resources elevates status by explicitly expanding on what counts as valuable contributions. They will leave this session with one more tool that promotes a culture that honors mistakes as a valuable part of the learning process.

8-12 | INT | 220 | Saturday, 9:15 - 10:15 | Hearth | BT

Co-presenter: Susan Hoffmier

Sagun, Theodore

Using Student Thinking: Tales of a Problem Solving Structure

This session will highlight the variety of ways we problem solve with students. With our emphasis on equity, building on students' mathematical thinking, and connecting mathematics to students' lives, we will highlight ways we surfaced and made use of student thinking. Additionally, we will discuss the way that we used kids' mathematical thinking to guide our instruction and the evolution of our problem solving template to be responsive to our students.

GI | INT | 102 | Saturday, 8:00 - 9:00 | Heather | BT

Co-presenters: Devika Banerjee, Tichina Ward Pratt, Arbin Lubiano, Tasnuva Hyder

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.



Schaffer, Karl

Moving in Circles, Dancing with Paper

This interactive session explores whole body circular activities easily done in the classroom, and draws connections to basic mathematical properties of circles, rotations, and how we represent circularity with words and symbols. Participants will discover surprising ways to use ordinary sheets of paper as a circular movement, dance, and mathematical prop. We will explore embodied circular patterns that reveal surprising properties of 2- and 3-dimensional geometry.

GI | INT | 301 | Saturday, 10:30 - 12:00 | Fred Farr Forum | BT

Sgroi, Richard

Q: "When Will I Ever Use This?" A: Financial Applications

We've all heard that question before! In this session, you will learn ways to model financial applications in a course entitled Advanced Algebra with Financial Applications (open to students of all ability levels). This UC "c" level approved 3rd/4th year elective draws upon topics from Algebra 2, PreCalculus, Statistics, and Probability, all within a broad range of engaging financial contexts. Participants will also learn ways to incorporate financial applications into other math courses.

8-12 | PRS | 107 | Saturday, 8:00 - 9:00 | Acacia | BT

Shuster, Dan

Accessing Probability using Manipulatives and Technology

Learning probability can be so engaging given the opportunity to estimate and simulate before working with formulas. This session will incorporate a variety of manipulatives and free, web-based technology to design and implement simulations to get a feel for probability concepts. An emphasis will be placed on interaction and group problem-solving.

8-12 | INT | 609 | Saturday, 3:30 - 5:00 | Marlin | BT

Spang, Edith

Engaging Students with Each Other's Ideas

Engaging with other students' mathematical thinking is one of the most effective ways to boost achievement, develop sophisticated strategies, and generate insights into mathematical relationships. This session will be a dive into teacher moves to make discourse about other students' thinking an everyday occurrence by all students, as we focus on equitably lifting student voice in the mathematics classroom.

3-5 | INT | 222 | Saturday, 9:15 - 10:15 | Embers | BT

Starnes, Daren

Unraveling the Magic of Statistical Inference

How can we help students make sense of important statistical concepts like margin of error and P-value? In this session, we'll explore two simulation activities—one for sampling and one for experiments—that help students unravel the logic of confidence intervals and significance tests, as well as the appropriate scope of inference. We will also consider how these activities can be used to motivate traditional inference procedures in an introductory statistics course.

8-12 | INT | 621 | Saturday, 3:30 - 5:00 | Afterglow | BT

Stop by the **CMC-Hub** in Surf and Sand, Saturday, between 9:00-5:00 and **pick up your swag**, and **your chance to win a \$250 voucher** for any one of our three conferences!

Stern, Michael

Guess My Number

Remember the trick where someone (a magician? a math teacher?) lays out 5 cards filled with numbers and asks you to think of a number between 1 and 31? You indicate which cards your number is printed on, and then, magically, the Mathemagician tells you your number! Participants in this interactive session will recreate this puzzle by exploring the amazing patterns and connections to the binary world of the microchip on which this puzzle is based.

3-5 | INT | 105 | Saturday, 8:00 - 9:00 | Evergreen | BT

Sulsberger, Megan

Teaching About Our World with Math Models and Manipulatives

In this interdisciplinary workshop, discover activities that bring current events and top global challenges into the math classroom. Explore trends in the environment, global population and more using models, manipulatives and lively group work that build middle school math skills while exciting students about math connections to their lives. Receive lesson plans matched to state standards.

6-8 | INT | 217 | Saturday, 9:15 - 10:15 | Nautilus West

Toncheff, Mona

How to Lead with a Focus on Equity

Equity in mathematics education is not optional. So, how do we as mathematics leaders ensure that all students are engaged in equitable instruction and experience meaningful and relevant mathematics? How do we make our vision a reality? Come join the discussion centered on leadership actions required to create a robust mathematics program for every student.

Ldrshp | INT | 300 | Saturday, 10:30 - 12:00 | Chapel | BT

Torres, Angela

Supporting Teachers Leaders to Advocate for Systemic Change

One way teacher leaders can support their learning communities to work towards equitable learning experiences for all students is to consider how the master schedule can be leveraged. Master schedules can support ideas such as regular meetings, new teacher support, transformative learning, or leadership. Join us for an interactive session to engage in activities we have used with teacher leaders. You will begin to consider how these ideas can help you advocate for change in your own context.

Ldrshp | INT | 412 | Saturday, 1:00 - 2:00 | Dolphin

Co-presenter: Estelle Woodbury

Tuska, Agnes

Productive Struggle with Constructing Divisibility Rules

Let's experience constructing viable arguments and critiquing the reasoning of others in a collaborative environment! We will collectively construct and justify divisibility rules in various bases by exploring the representations of numbers with Dienes' Multi-Base Arithmetic Blocks. The playground is open and accessible for everybody to experience the magic of mathematics!

Ldrshp | INT | 305 | Saturday, 10:30 - 12:00 | Evergreen | BT

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.

Weekes, Timothy**Rethinking the SMP for Equity and Social Transformation**

CMC Equity and Social Transformation committee will provide grade-level specific examples and vignettes illustrating how the SMP can be more equitably aligned with the criteria of Culturally Responsive Pedagogy to support students in culturally diverse classrooms. Teachers will explore the SMP using an equity lens; reflect upon their own practices within the classroom; and consider culturally responsive pedagogies that move towards more equitable applications of the SMP.

GI | INT | 321 | Saturday, 10:30 - 12:00 | Afterglow | BT

Co-presenter: CMC EST Committee

Weekes, Timothy**Number Talks for Access, Equity, Identity and Ownership**

Mathematics is about more than just problem-solving. It is a rich and precise way to view the world around us. And if our view of the world is influenced by our backgrounds, then our relationship to mathematics must also be inextricably link to our culture. This workshop will explore how culturally competent number talks can support student development of self-affirming identities as mathematicians through grade-specific talk-moves that promote student access, equity, identity, and ownership.

GI | INT | 502 | Saturday, 2:15 - 3:15 | Heather | BT

Weker, Ethan**Mathographies: Sharing Our Math Identities**

Every student has a story to tell about their relationship with mathematics, and every teacher benefits from asking students about their experiences with math, in and out of the math classroom. By asking students to share their successes and struggles with mathematics, and by sharing our own stories, we help create a safe community and start to build relationships. In this session, learn how to structure a mathography assignment, and start to write your own.

8-12 | INT | 622 | Saturday, 3:30 - 5:00 | Embers | BT

Wilson, Johnnie**Build a Math Game**

In this session Johnnie will share math games from his Build a Game YouTube channel. He will share how games bring joy and magic to mathematics, the essentials of what makes a good math game work, and how to make a math focused YouTube channel.

GI | PRS | 503 | Saturday, 2:15 - 3:15 | Kiin | BT

Winawer, Marcey**Teacher Moves that Lead to Student Engagement and Success**

For many students, success in math is directly correlated with their classroom experiences. During this session, we will discuss teacher moves that empower students to become agents of their own learning and prepare them to participate in collaborative learning. We will use the TRU Observation Guide for Mathematics to understand the outcomes we will see when our teacher moves have successfully led to classrooms where students feel confident in their ability to engage in the Magic of Mathematics.

8-12 | PRS | 522 | Saturday, 2:15 - 3:15 | Embers | BT

Wolfson, Risa**Making Mathematics Magical!**

We will explore a variety of "magic tricks," discuss instructional strategies, and address the underlying mathematics. Participants will leave the session with materials ready to use with their students in math content areas including activities with binary numbers, algebra and geometry. Come prepared to play and learn and share!

6-8 | INT | 112 | Saturday, 8:00 - 9:00 | Dolphin | BT

Zamora, Lupe**Engaging Projects that Make the Math "Magic" Come to Life**

Have you thought about creating a piece of art using specific geometric shapes and explaining what inspired you to do it? Have you assigned a tessellation project and given students the freedom to develop it using their artistic abilities, or providing students a graph where they have to create a scenario that represents the situation? These are a few of the activities that our session will share along with others that incorporate the magic of math to engaging students in meaningful and fun way.

8-12 | INT | 303 | Saturday, 10:30 - 12:00 | Kiln | BT

Co-presenter: Terrie Romines

Zhou, Monique**GeoGebra Classroom for Formative Assessment in a Digital Age**

In this session, we will explore GeoGebra Classroom as a free virtual platform for teachers to conduct interactive and collaborative lessons with their students, breaking down barriers of entry for high quality math education tools and content. Instructors can easily distribute multi-functional interactive activities to students and observe their progress in real-time as they work, and the results can then be discussed with the entire class or used to provide individual feedback and support.

GI | INT | 507 | Saturday, 2:15 - 3:15 | Acacia | BT

CMC is requiring the wearing of masks indoors except while eating and drinking.

**T-shirts, sweatshirts and aprons**

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.



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.

The **leadership** strand focuses on areas of interest to mathematics teacher leaders and coaches as well as district and site administrators.

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**

Albrecht, Masha
Aminiata, Dionne
Balli, Jessica
Bates, Abigail
Baumann, Shelly
Bean, Joshua
Bertolone-Smith, Claudia
Buckner, Barbie
Burrill, Gail
Byrd, LaToya
Byrns, Andrew
Challen, Cate
Chan, Helen
Cook, Julia
Curran, Danielle
Daley, Molly
Dance, Kristina
Daro, Phil
DeCarli, Elizabeth
Diamond, Ned
Donavan, Kristie
Dykema, Kevin
Ellis, Mark
Fossum, Nolan
Galasso, Sarah
Garner, Jamie

Goldstein, Mark
Gomez, Emiliano
Hoffmier, Susan
Hwang, Jinna
Jalalpour, Kathleen
Kelemanik, Grace
Kim, Matthew
Kriegler, Shelley
Krow, Chris
LaMar, Tanya
Leinwand, Steve
Lucenta, Amy
Mayfield-Ingram, Karen
McAlvey, Lissie
McClain, Maria
McInnis, Marva
McMurtry, Whitney
Mendle, Alvin
Milvidskaia, Yekaterina
Moore, Sara
Morrison, Patty
Muller, Eric
Murphy, Eden
Newell, Chrissy
Nisbet, Nigel
Nordlin, Michael
Novelli, Barbara

Ortega, Courtney
Phillips, Jamie
Picciotto, Henri
Pickford, Avery
Ray, Solana
Ruiz, Brianna
Sagun, Theodore
Shuster, Dan
Spang, Edith
Stern, Michael
Toncheff, Mona
Tuska, Agnes
Weekes, Timothy
Weker, Ethan
Winawer, Marcey
Zamora, Lupe
Zhou, Monique

■ **Coaching**

Gale, Mardi
Miller, Ruth

■ **Games**

Abell, Steven
Allen, Yetta
Eisenberg, Gary
Greenes, Carole

Menon, Beena
Nickerson, Rob
Rodriguez, Marin
Wilson, Johnnie
Wolfson, Risa

■ **Leadership**

Callahan, Patrick
Cheng, Jenny
Torres, Angela

■ **MITI**

Buckner, Barbie
Kelemanik, Grace
Mendle, Alvin
Rodriguez, Marin

■ **Social Justice**

Becker, Dean
Becker, Joanne
Carter, Krystal
Erickson, Tim
Iglehart, Tracey
Kwun, Naehee
Nank, Sean

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.

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience						Beginning tchr.
		K-2	3-5	6-8	8-12	Ldship/tchEd	GI	
Abell, Steven	DragginMath: Structural Semantics on Your iPad				√			√
Albrecht, Masha	The Magic of Fractals: Inspiring Student Projects				√			√
Alcott, Annie	Brain Bins and Collections: Strategies to Develop ELD and STEM Thinking	√						
Allen, Yetta	Gamify using Escape Rooms				√			√
Aminiata, Dionne	Supporting Culturally Responsive Pedagogy with IM K-5 Math		√					
Balli, Jessica	Re-Engagement: A Strategy to Move Forward, Not Backwards						√	√
Bates, Abigail	Building Thinking Classrooms: Beginning the Journey				√			√
Baumann, Shelly	Engaging Tasks to Encourage Student Thinking			√				√
Bean, Joshua	Fostering Diversity and Equity Through Sharing Understanding						√	√
Beatini, Tom	Exploring Functions Through Hands-on Data Collection				√			√
Becker, Dean	Residuals and R-squared, the Relationship Revealed!				√			√
Becker, Joanne	The Magic of Mathematical Modeling in Geometry				√			√
Bertolone-Smith, Claudia	Partitioning, Iterating, and Unitizing... OH MY!		√					√
Britton, Josh	Word Problems First: Algebra Strength Through Discovery				√			√
Buckner, Barbie	NASAs Scale of Discovery: Fractions & Ratios of the Universe			√				√
Burrill, Gail	Exploring Mathematics Through Data and Data Science				√			√
Byrd, LaToya	Supporting Culturally Responsive Pedagogy with IM K-5 Math	√						√
Byrns, Andrew	E-L-L or A-L-L? ELL Strategies for Involving ALL Learners						√	√
	The 'R' in CRL						√	√
Callahan, Patrick	Asset Based Assessments: Dismantling Inequitable Structures						√	√
Carter, Krystal	Using Math to Explore and Design a Homelessness Solution			√				√
Challen, Cate	Open Sesame: Unleash the Magic of Your Students' Thinking				√			√
Champagne, Zachary	Playing the Long Game	√						√
Chan, Helen	Soar with Paper Airplanes: Activate Voices in Data Science			√				√
Cheng, Jenny	Transcend Awareness of Social Justice: Take Action!					√		√
Cook, Julia	More Choice, More Voice						√	√
Curran, Danielle	Equitable Practices Leading to Effective Problem Solvers	√						√
Daley, Molly	Noticing and Responding to Mathematical Moments	√						√
Dance, Kristina	Introduction to Youcubed's Explorations in Data Science				√			√
Daro, Phil	Math Milestones: Each Grade Math On a One Page Grid of Tasks		√					√
DeCarli, Elizabeth	Detracking: Our continuing work towards equity in SFUSD					√		
Diamond, Ned	Python Turtle: The Magical Math Tinkering and Logic Tool			√				√
Donavan, Kristie	Math 1 + Foundations = Our Success Formula for Intervention				√			√
Dykema, Kevin	Productive Struggle + Manipulatives = Success!						√	√
Eisenberg, Gary	Singing, Dancing and Playing Through K-3 Mathematics	√						√
Ellis, Mark	Learning from Teachers Working to Rehumanize Math Learning						√	√
Erickson, Tim	Introducing Data Science and Data Moves				√			√

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience						Beginning Tch.
		K-2	3-5	6-8	8-12	Ldshp/TchEd	GI	
Fossum, Nolan	Pillars and Practices: Equity Grading for All Students						√	√
Foster, Hallie	Of Course There's Discourse in This Course							
Galasso, Sarah	Creating Intentional Pathways to Readiness Success				√			√
Gale, Mardi	Coaching/Teaching to Support Understanding & Access					√		√
Garner, Jamie	Assessing and Addressing Unfinished Learning with R.A.M.P.						√	√
Goldstein, Mark	Why Do I Need to Know This?			√				√
Gomez, Emiliano	Mapping a New Normal with MDTP Diagnostic Data				√			√
Graysay, Duane	Strategic Construction of Examples in Mathematics Teaching				√			√
Greenes, Carole	Develop Students' Algebraic Reasoning Talents: How and Y!			√				√
Hoffmier, Susan	Promoting Authentic Engagement & Rigor with the 5 Practices			√				√
Hwang, Jinna	Data Science: A New Avenue for Success in High School Math				√			
Iglehart, Tracey	Integration of ELA/Math/Social Studies/Social Justice	√						√
Jackson, Traci	Math Walks: Mathematical Magic Outside Classroom Walls						√	√
Jalalpour, Kathleen	Slow Is The New Fast						√	√
Kelemanik, Grace	5 Strategies to Ensure All Students Think Mathematically		√					√
Kim, Matthew	Teaching 3.0: Equitable Teaching in a Post-COVID World				√			√
Kirley, Kim	Math and Literacy in Your Joyful Primary Classroom	√						√
Kriegler, Shelley	Using Opening Problems to Spark Engagement			√				√
Krow, Chris	Statistics and Probability Through Simulation				√			√
Kwun, Naehee	Social Justice in a Virtual Setting: A Case for Reparations				√			√
LaMar, Tanya	The Rise of Data Science				√			√
Leinwand, Steve	A Game Plan for Invigorating High School Mathematics				√			√
Lindaman, Brian	The 2021 CA Mathematics Framework: Content Connections, Learning ...						√	
Lucenta, Amy	Build Student Agency Through Mathematical Modeling			√				√
Marsh, Micheal	Using Manipulatives and Investigations to Teach Geometry				√			√
Mayfield-Ingram, Karen	Dismantling Racism in Mathematics Instruction: A Toolkit			√				
McAlvey, Lissie	Dear Data Postcards: Engaging SEL, Equity and Art with Stats			√				√
McClain, Maria	Building Confidence and Connections: Student Led AP Readings				√			√
McInnis, Marva	Teaching and Reaching Students in a Diverse Setting	√						√
McMurtry, Whitney	Create Opportunities for Students to Exceed Our Expectations			√				√
Mendle, Alvin	Bucky's Jitterbug: Synergetic Magic			√				√
Menon, Beena	Getting Students to Appreciate the Beauty of Math		√	√				√
Miller, Ruth	Transform the Way that You Teach Transformations				√			√
Milvidskaia, Yekaterina	The Magic of Being Students of Your Students' Thinking			√				√
Moore, Sara	Visual Representations Magnify Mathematical Understanding	√						√
Morrison, Patty	Using Literature to Engage Students in Patterns (Prek-1st)	√						√
Muller, Eric	Seeing Math Around You: Geometry, Data and Your Vision						√	√
Murphy, Eden	Go Dodgers: Exploring Data Through Simulations				√			√
Nank, Sean	Oppression to Success: A student's Journey Through Education						√	√

Speaker	Presentation Title (Refer to alpha section for presentation description.)	Target Audience						Beginning Tch. r.
		K-2	3-5	6-8	8-12	Ldship/TchEd	GI	
Newell, Chrissy	Using Feedback in Desmos to Move Student Thinking Forward			√				√
Nickerson, Rob	Stepping Toward Addition and Subtraction Fluency	√						√
Nisbet, Nigel	The Neuroscience of Deeper Learning						√	√
Nordlin, Michael	A Visual Model to Increase Access to Fraction Concepts						√	√
Northrop, Christen	Fractions, Beyond a Numerator and Denominator		√					
Novelli, Barbara	Support Students in Making Sense of the Math They Do!							√
Ortega, Courtney	Let's Energize Around the Way We Synthesize!			√				√
Phillips, Jamie	The Magic of Play: Building Inclusive Mathematics Classrooms	√						√
Picciotto, Henri	Tiling (tessellation): A Springboard for Geometry						√	√
Pickford, Avery	Rethinking Homework: Practice, Pushing & Pondering Problems				√			√
Ray, Solana	Beautiful Mathematical Explanations in the Primary Classroom	√						√
Rodriguez, Marin	Middle School Math Skill Building Using Games and Toys			√				√
Ruiz, Brianna	Elevating Student Status with Rough Draft Talk				√			√
Sagun, Theodore	Using Student Thinking: Tales of a Problem Solving Structure						√	√
Schaffer, Karl	Moving in Circles, Dancing with Paper						√	√
Sgroi, Richard	Q: "When Will I Ever Use This?" - A: Financial Applications				√			√
Shuster, Dan	Accessing Probability Using Manipulatives and Technology				√			√
Spang, Edith	Engaging Students with Each Other's Ideas		√					√
Starnes, Daren	Unraveling the Magic of Statistical Inference				√			√
Stern, Michael	Guess My Number		√					√
Sulsberger, Megan	Teaching About Our World with Math Models and Manipulatives			√				
Toncheff, Mona	How to Lead with a Focus on Equity					√		√
Torres, Angela	Supporting Teachers Leaders to Advocate for Systemic Change					√		
Tuska, Agnes	Productive Struggle with Constructing Divisibility Rules					√		√
Weekes, Timothy	Rethinking the SMP for Equity and Social Transformation						√	√
Weekes, Timothy	Number Talks for Access, Equity, Identity and Ownership						√	√
Weker, Ethan	Mathographies: Sharing Our Math Identities				√			√
Wilson, Johnnie	Build a Math Game						√	√
Winawer, Marcey	Teacher Moves That Lead To Student Engagement and Success				√			√
Wolfson, Risa	Making Mathematics Magical!			√				√
Zamora, Lupe	Engaging Projects that Make the Math "Magic" Come to Life				√			√
Zhou, Monique	GeoGebra Classroom for Formative Assessment in a Digital Age						√	√

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.

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 3-5, 2021*

Sarah Ives

Sarah Ives, CMC-N President



T-shirts, sweatshirts and aprons 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.



Stay connected with CMC



www.facebook.com/CAMathCouncil



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

CALL FOR SPEAKERS

CMC-North 65th Annual Conference

Asilomar and Pacific Grove Middle School, Pacific Grove

Leaning In, Moving Forward: Embracing the Promise of Mathematics for All

December 2-4, 2022

Proposals will be accepted online at <https://www.cmc-math.org/north-speakers> from January 30 to May 1, 2022. 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 **Bernadette Salgarino** at bernadette.salgarino@gmail.com

Exhibitors

Company	Merrill Hall	Company	Merrill Hall
Bedford, Freeman & Worth High School Publishers	226	IXL Learning	236
brising.com	228-229	Imagine Learning	207-208
California Casualty	206	Magma Math	224
California Teachers Association	237	McGraw Hill	221-222
Carnegie Learning	216	National Council of Teachers of Mathematics	201-202
Center for Math and Teaching	227	National Geographic Learning/Cengage	238-240
CMC CoMmuniCator	211 - 212	National University	217
CMC-N Exhibits	253	Next Gen Math, LLC	234
CMC-N grants	203	CMC-N T-shirts	251-252
CPM Educational Program	213-214	Savvas Learning Company	218-220
CSU/UC Mathematics Diagnostic Testing Proj. (MDTP)	225	SchoolsFirst FCU	223
Curriculum Associates	232-233	ST Math, Created by MIND Research Institute	235
Get More Math®	209-210	Texas Instruments	231
hand2mind	254-255	TODOS: Mathematics for ALL	204
Houghton Mifflin Harcourt	205	Wiris	230

Merrill Hall at Aisilomar
Friday, 1:30 - 7:30pm **and** Saturday, 7:30am - 3:30pm
Saturday, Drawing at 3:00pm

Exhibits close promptly at times listed above so visit early!

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

CMC is requiring the wearing of masks indoors except while eating and drinking.



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 3:30pm!

stage

210 Get	220 Savvas	230 Wiris	240 National
209 More Math	219 Learning	229 brising.com	239 Geographic
208 Imagine	218 Company	228 brising.com	238 learning Cengage
207 Learning	217 National University	227 Center for Math Teaching	237 Calif Teachers Assoc
206 California Casualty	216 Carnegie Learning	226 Bedford Freeman Worth	236 IXL Learning
205 Houghton Mifflin Harcourt		225 CSU/UC Math Diagnostic	235 ST Math
204 TODOS Math for	214 CPM Educ	224 Magma Math	234 Next Gen Math
203 CMC-N Grants	213 program	223 SchoolFirst FCU	233 Curriculum
202 National Council Teachers 201 Of Mathematics	212 CMC	222 McGraw	232 Associates
	211 CoMmuniCator	221 Hill	231 Texas Instruments

door

251 CMC-N T shirts	252	253 CMC-N Exhibits	254	255 hand2mind
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Award | Nominations

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 May 1, 2022.

2021 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 5,100 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:



Mrs. Anamarie Buljan

Anamarie (Mia) is a third grade teacher at Fairview Elementary School in the Hayward USD. She has been teaching for twenty-four 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 USD (2019-20) and was a previous PAEMST California State Finalist in 2016. The topic she chose for her lesson was finding strategies to interpret products of whole numbers.

Mrs. Khamphet Pease

Khamphet is a sixth grade STEM teacher at Wilson Middle School in the San Diego USD. She has been teaching for fourteen years. At her site, she is teaching Introduction to Coding; Gateway to Technology: Design & Modeling, Automation and Robotics and Computer Science for Innovators and Makers. Khamphet is a champion for underrepresented girls in the STEM fields. From 2014-16 she mentored 16 high school girls from schools across San Diego County to design, program and build a microlab experiment that was deployed to the International Space Station to test zero gravity. She has worked with the Noyce Master Teacher Fellowship Program to work with clusters of teachers throughout the community. The lesson Khamphet taught was an introduction to coding.

Mrs. Leslie Whitaker

Leslie is a third grade teacher at Esencia Elementary in Rancho Mission Viejo in the Capistrano USD. She has been teaching for twenty years and was also a Math TOSA in the Capistrano USD. 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. This summer she wrote Canvas third grade math lessons for the first two trimesters of CUSD Distance Learning. The topic for her video lesson was comparing fractions by reasoning about their size, number of parts and relationship to benchmarks.

If you know a great math teacher, go to the PAEMST portal to nominate a K-6 teacher of mathematics for the 2022 award. Computer Science teachers may also apply. To nominate a teacher or to download an application visit www.paemst.org. The nomination period is open until March 1, 2022 and the application must be completed by May 1, 2022.

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

Board Members

2021-2022	State	President Christine Roberts President-Elect.....Bruce Grip SecretaryChristina Lincoln-Moore Treasurer.....Scott Ellingson	North	PresidentSarah Ives President-Elect.....Mary Ann Sheridan Vice President..... Julie McNamara SecretaryAlison Nash Treasurer..... Brian Lim
	2022-2023	State	PresidentBruce Grip Past President..... Christine Roberts President-Elect.....Bernadette Salgarino SecretaryChristina Lincoln-Moore Treasurer.....Scott Ellingson	North

Calendar of Math Events



March 11-12, 2022

CMC Central Mathematics Symposium

September 26-28, 2022

NCSM Annual Conference, Anaheim, CA

September 28-October 1, 2022

NCTM Annual Conference and Exposition, Los Angeles, CA

November 4-5, 2022

CMC South Mathematics Conference, Palm Springs, CA

December 2-4, 2022

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 McConaughy, rmconnaughy@nucharters.org

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

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

Mt Lassen Math Council
Leah Hoyer, lhoyer@northernsummitacademy.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

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 29.



STAY CONNECTED WITH CMC

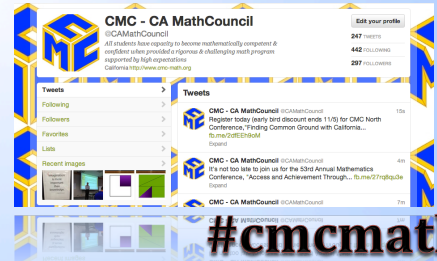
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The 64th Annual CMC - North Conference Committee wishes to thank all of the speakers for contributing to an amazing conference.

Continuing Education Units

SPECIFICS:

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

Course Code: **21F EDU 870B 01**

CEUs: **1.5**

Course Fee: **\$65**

Date: **12/3/2021 - 12/5/2021**

- 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 2022. Please do NOT call before that time. After February 1, you may send an e-mail 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 Brian Lim by December 31, 2021.

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, 2021 to:

CMC, Attn: Brian Lim
 PO Box 234
 Kentfield, CA 94914
 blim128@yahoo.com

Download form at
<http://cmc-math.org/temp/wp-content/uploads/2016/09/2017-Registration-Agreement.pdf>

Contract Education Program
Registration Agreement

SACRAMENTO STATE
COLLEGE OF CONTINUING EDUCATION

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 contract courses.
- For more information on the College of Continuing Education refund policy please go to www.cce.csus.edu.

PLEASE PROVIDE THE FOLLOWING INFORMATION:

Name - Last _____ First _____

Home Address (Number, Street, Apt.) _____

City _____ State _____ Zip _____

Occupation _____

Home Phone _____ Work Phone _____

Email _____

Birthday _____ Sex Male Female

Highest level of education completed:
 High School A.A. B.A./B.S. M.A./M.S. Ph.D.
 Trade School/Other Some College

5-DIGIT COURSE CODE	COURSE TITLE	DATES
21F EDU 870B 01	California Mathematics Council North Annual Conference	12/3/2021 - 12/5/2021

PAYMENT

Check - payable to CSUS College of Continuing Education Card Number _____

Visa Expiration Date _____

Master Card Amount _____

Discover Name of Cardholder _____

Cardholder's Signature _____

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

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.

Stop by the **CMC-Hub** in Surf and Sand, Saturday, between 9:00-5:00 and **pick up your swag**, and **your chance to win a \$250 voucher** for any one of our three conferences!

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!



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>

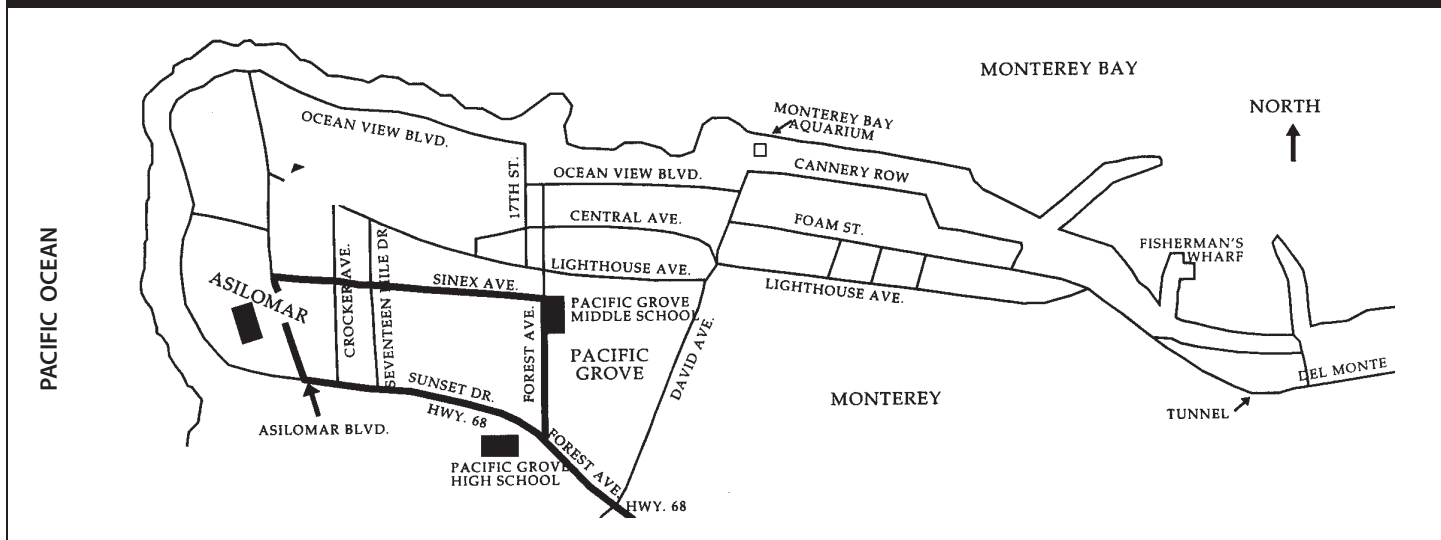
We have made every attempt to provide adequate seating for participants at the conference. However, to ensure your safety and adhere to fire regulations, the number of participants allowed in each meeting room will be limited to the number of seats approved by the Fire Marshall. Anyone sitting on the 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.



PACIFIC GROVE





Asilomar Math Conference Room Guide

A – North Woods (Toyon)
B – View Crescent (Chapel, Curlew, Sandertling)
C – Merrill Hall
D – Sea Galaxy (Nautilus East & West, Triton)
E – Fireside (Afterglow, Embers, Evergreen, Fred Farr, Hearth, Kiln)

LODGING	MEETING ROOMS
Afterglow Rooms 101-512	Acacia B4
Breakers East Rooms 821-832	Chapel Auditorium D5
Breakers West Rooms 833-840	Curlew C4
Cypress Rooms 717-724	Dolphin C5
Deer Lodge Rooms 121-150	Evergreen F1
Director's Cottage Rooms 133-1324	Fred Farr Forum E2
Embers Rooms 101-102	Hearth C4
Engineer's Cottage Rooms 1202-1211	Kiln E2
Forest Lodge Rooms 901-903	Madrone G3
Guest Inn Rooms 1325-1336	Manzanita I & II B4
Hearth Rooms 101-100	Marlin D4
Live Oak Rooms 201-218	Merrill Hall G4
Lodge Rooms 101-100	Nautilus H4
Long View North Rooms 101-10	Oak Knoll I & II C4
Long View Middle Rooms 111-120	Oak Shelter F1
Long View South Rooms 121-130	Sanderling C6
Manzanita Rooms 1001-1012	Scripts D4
Oak Knoll Rooms 103-1024	Surf & Sand G5
Pirates' Den Rooms 501-510	Toyon B4
Sand Rooms 605-610	Triton H4
Scripts Rooms 301-323	Willow I & II B4
Shores Rooms 709-716	Whitehead G3
Spindrift North Rooms 849-856	OTHER
Spindrift South Rooms 841-848	BBQ Area E6
Stuck-up Inn Rooms 401-414	Crocker Dining Hall F6
Surf Rooms 601-604	Fire Pits H5
Tree Tops Rooms 111-120	Guest Check-In E5
Whitecaps North Rooms 809-820	Hearst Social Hall F1
Whitecaps South Rooms 801-808	Human Resources A3
Willow Inn Rooms 1025-1036	Meditation Space A3
Windward Rooms 701-708	Mott Training Center G2
Woodside Rooms 1212-1223	Park Ranger Office G1
	Park Store E5
	Phoebe's Cafe E5
	Seascape F6
	Swimming Pool A5
	Conference and Event Sales E4
	Viewpoint E4
	Volleyball Court F5
	Woodlands A3
	Yoga Room A3
	PARKING LOTS
	Parking Lot A E5
	Parking Lot B G5
	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 A4
	Parking Lot K B4
	Parking Lot L B5
	Parking Lot M E2
	Parking Lot N H2
	Parking Lot P I3

- LEGEND**
- Information/Guest Check-In
 - Disabled Parking
 - EV Charging Station
 - Beverage Vending Machine
 - Ice Machine
 - Julia Morgan Historic Building
 - Roadway
 - Pedestrian Pathway
 - Outdoor Group Activity Area

