

Friday, April 12th

<p>1 9:45 AM - 10:45 AM 9-12 Harbor Side 202</p> <p>Understanding the Nonlinear Dynamics of Climate through Algebra</p> <p>We introduce nonlinear systems of climate using equations for rates of change, while making connections to Minnesota data science and patterns/relationships standards. We'll construct models using spreadsheets, equipping you with materials to make teaching climate change accessible to students.</p> <p>Speakers: Amber Armstrong, Raney Bice University of Minnesota - St. Paul</p>	<p>6 9:45 AM - 10:45 AM PK-2 Harbor Side 304</p> <p>What is CGI? Why implement it? And how?</p> <p>This session illustrates the philosophy of Cognitively Guided Instruction (CGI) through student videos, example problems, and the CGI framework. Participants will engage in solving K-2 problems, view students solving those problems, and focus on students' inherent understanding of solution strategies.</p> <p>Speaker: Joan Kwako University of Minnesota Duluth</p>
<p>2 9:45 AM - 10:45 AM General Session Harbor Side 203</p> <p>Cultivating Belonging Through An Understanding of Tribal Sovereignty</p> <p>A student's sense of belonging positively affects their experiences and outcomes in a math classroom. In this session the importance of belonging will be tied to tribal sovereignty, an inherent right that protects tribal languages, cultures and land. Connections to the ICUCARE Framework will also be explored and shared.</p> <p>Speaker: Laura Wagenman Osseo Area Schools - Crest View Elem</p>	<p>7 9:45 AM - 10:45 AM 9-12 Harbor Side 305</p> <p>Doenet: An Open Educational Resource for Math Discovery</p> <p>The University of Minnesota has developed the Distributed Open Educational Network (Doenet) as a tool for delivering practice exercises and exploratory activities to students in a variety of math courses. Our favorite lessons and features will be on display.</p> <p>Speaker: Mike Weimerskirch University of Minnesota Twin Cities</p>
<p>3 9:45 AM - 10:45 AM 3-5 Harbor Side 204</p> <p>Mathematical Problem Solving for All Students</p> <p>Teaching students to reason and problem solve is the cornerstone of quality math instruction. This session will highlight several engaging strategies that will provide multiple entry points for all students to engage in the math and ignite a passion for problem solving in your classroom!</p> <p>Speaker: Pamela Richards STEMscopes by Accelerate Learning Inc.</p>	<p>8 9:45 AM - 10:45 AM 6-8 Ballroom L</p> <p>The 100 Grid moves to Algebra</p> <p>The 100 grid is often used in elementary mathematics classrooms to introduce students to number patterns. This workshop extends this tool to the middle school (and high school) learner beyond number sense and moves into algebraic thinking and problem solving.</p> <p>Speaker: Lesa Clarkson University of Minnesota</p>
<p>4 9:45 AM - 10:45 AM 6-8 Harbor Side 302</p> <p>Developing Learner Agency Through Learning Progressions</p> <p>Come see how at South View Middle School in Edina, an AMLE (Association for Middle Level Education) School of distinction, we work to grow learner agency through Learning Progressions. Agency is prioritizing, carrying out, and communicating progress towards next steps.</p> <p>Speakers: Sarah Miziorko, Marit Oberle Edina - South View MS</p>	<p>9 9:45 AM - 10:45 AM General Session Ballroom M/N</p> <p>Using Benchmark Achievement Level Descriptors with Released Questions</p> <p>The Benchmark Achievement Level Descriptors (BALDs) provide specific descriptions of what students typically know and can do based upon MCA scores. We will show how to use these with released MCA questions from the Minnesota Questions Tool (MQT).</p> <p>Speakers: Michael Huberty, Angela Hochstetter Minnesota Department of Education</p>
<p>5 9:45 AM - 10:45 AM General Session Harbor Side 303</p> <p>Using Mathematical Autobiographies to Support Students</p> <p>Using an autobiography assignment, a student can provide teachers with insight on the needs for each student and how to best support them. Examples of this assignment and its implementation will be shared.</p> <p>Speaker: Jered Bright University of Minnesota Rochester</p>	<p>10 9:45 AM - 10:45 AM General Session Ballroom O</p> <p>Grading in a Building Thinking Classroom</p> <p>Changing your grading isn't something you should do your first year or even your second year of implementing BTC, but you will know when you are ready. We will talk about homework, building and grading assessments, and communicating with students and parents.</p> <p>Speaker: Jessica Strom Win-E-Mac</p>

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11 9:45 AM - 10:45 AM
3-5 French River 1

Let's PLAY!!! MN MATH

Let's Play: Hands on games and activities station rotation. Experience AR Reality Math that you will be able to use in your classroom for FREE: Everything we use during this session you get to walk away with to do with your students the next day!! Let's play, excite kids about math, and have so much fun while doing so!! You don't want to miss this session!

Speakers: Dawn Conzemius, Sarah Borchert, Chris Potts
McGRAW Hill

12 9:45 AM - 10:45 AM
9-12 French River 2

How do you effectively plan an equitable lesson?

Equity doesn't just happen! You must plan for it! In this session, participants explore research based equitable strategies that will enhance your current lesson plans. Get ready because you will take away strategies that you can implement immediately!

Speakers: Cheryl Tucker, Becki Saunders
CPM Educational Program

13 9:45 am - 10:45 AM
9-12 Split Rock 2

Quadratics! Equations, Functions, Formula, Factoring - Creative Teaching Ideas

Graph quadratic functions in 3 forms: standard, vertex, factored, by recognizing patterns and using the "parabola" dance. See 5 different ways to solve quadratic equations. Learn to state the equation in all 3 forms of a parabola given its graph.

Speaker: Tom Reardon
Fitch High School OH

14 9:45 am - 10:45 AM
College Registration Area

Not Your Grandfather's Student Response System

Student response systems make it is easy to conduct formative assessment and get immediate feedback. Experience a hands-on iClicker session to see how phones, iPads and laptops have transformed this tool, improving the experience from the "clickers" of the past.

Speaker: Ed Dillon

E1 9:45 AM - 10:45 AM
General Session Exhibit Hall

Make Inquiry Learning Resources for your Classrooms

Dive into the dynamic realm of inquiry-based learning at our Illustrative Math Session. Explore innovative strategies and collaborative tools, equipping math teachers with engaging resources that ignite curiosity and foster a deeper understanding of mathematical concepts in classrooms

Speakers: Cecily Klein, Scott Mader
Imagine Learning

15 10:00 AM - 11:30 AM
6-8 St. Louis River Room

Introducing Integers in a Thinking Classroom

Come participate in Thinking Classroom activities organized around three key moments that predictably arise when students are introduced to integers. We will unpack the teaching practices within the activities and examine how and why particular models help students understand integers.

Speakers: Aran Glancy, Christy Pettis
Hill-Murray School

16 10:00 AM - 11:30 AM
College Gooseberry Falls 1

Grading for Equity

Discuss equitable grading practices and strategies to ensure fair, unbiased, and inclusive assessment approaches. Learn how we adapted the ideas from "Grading for Equity" by Joe Feldman, to our courses and why we will never go back to "traditional" grading.

Speakers: Adam Smieja, Katie Smieja

18 10:00 AM - 11:30 AM
9-12 Gooseberry Falls 3

Elementary math that high school teachers will find useful

High school teachers are not aware of the mathematics taught in grade school. Our goal is to connect high school lessons with students' knowledge from previous years and inspire teachers to use more visual and hands-on approaches.

Speakers: Mark Causapin, Lisa Conzemius
Concordia College - Moorhead, MN

19 10:00 AM - 11:30 AM
9-12 Split Rock 1

Using Simulation to make Sense of the World.

Investigating phenomena in the world can engage students in building conceptual understanding of terms such as herd immunity, false positives or and can provide them with the tools to make informed decisions in their own lives and as responsible citizens.

Speaker: Gail Burrill
Michigan State University

20 11:00 AM - 12:00 PM
9-12 Harbor Side 202

Fundamental mathematics in Computer Science.

In this session, we will discuss the prerequisite and the corequisite math needed for students to be successful in a programming course. Suggested topics and sample activities will be discussed using both mathematics and code.

Speaker: Matt Priem
Minnesota State University, Mankato

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<p>21 11:00 AM - 12:00 PM 6-8 Harbor Side 203</p> <p>Fluency Fridays</p> <p>This highly interactive session will have participants engaging in hands-on math fluency related activities and games. Participants will leave with a collection of activities that will create a high level of engagement, build mathematical fluency as well as community in their classrooms.</p> <p>Speaker: Meredith Grewe ISD 622 - John Glenn MS</p>	<p>26 11:00 AM - 12:00 PM 9-12 Harbor Side 305</p> <p>Math Language Routine: Critique, Clarify, Correct</p> <p>Sharpen your math talk! Dive into "Critique, Clarify, Correct" - a high-impact routine for building precise language and deeper mathematical thinking. Participants will experience a high school example and leave with lesson ideas and resources beneficial for all students, particularly ELs.</p> <p>Speakers: Graham Litterst, Marcy Kickhafer Saint Cloud Area School District 742</p>
<p>22 11:00 AM - 12:00 PM General Session Harbor Side 204</p> <p>Just Trust Me!</p> <p>Developing deep Number Sense is best done as a "multi-sensory" process, which taps into our brain's hard-wired ability to do math. Yes! We are hard-wired to do math! This session will explore how to develop number understanding and algebraic thinking through several activities, with a variety of manipulatives.</p> <p>Speaker: Elizabeth Peyser N/A</p>	<p>27 11:00 AM - 12:00 PM 3-5 Ballroom L</p> <p>1 2 3 Looks Like Me: Culturally Relevant Mathematics</p> <p>Culturally relevant mathematics teaching and learning experiences are essential in Minnesota classrooms. This session is aimed at moving participants from "it's a good idea" to "what can we do in our next math lesson." A connection will be made to the ICUCARE Framework.</p> <p>Speaker: Lesa Clarkson University of Minnesota</p>
<p>23 11:00 AM - 12:00 PM 3-5 Harbor Side 302</p> <p>Comparing Nerdle Strategies Between 4th Grade and College</p> <p>The game Nerdle was used in two fourth grade classrooms and a college pre-service math content course. The college and elementary students had a friendly competition each week to see who could solve the puzzle fastest. Observations of thinking strategies shared.</p> <p>Speakers: Todd Frauenholtz, Lexi Heppner, Jenna O'Dell, Jessa Stay Bemidji State University</p>	<p>28 11:00 AM - 12:00 PM General Session Ballroom M/N</p> <p>Rigor, DOK, Instruction, and the MCA</p> <p>We'll provide practical ideas and resources to increase rigor in K-12 math classrooms to engage all students in the fullness of every benchmark leading to grade level understanding. We'll highlight using DOK as lens to view instructional decisions and materials.</p> <p>Speakers: Angela Hochstetter, Michael Huberty, Sara Van Der Werf Minnesota Department of Education</p>
<p>24 11:00 AM - 12:00 PM General Session Harbor Side 303</p> <p>How I AVID-ized My Math Class</p> <p>Have you hear of AVID or WICOR? Want a way to engage students? I will show you ways I implement writing, inquiry, collaboration, and speaking to help students level up as mathematical thinkers!</p> <p>Speaker: Alexis Wolf North St Paul-Maplewood-Oakdale - John Glenn MS</p>	<p>29 11:00 AM - 12:00 PM 6-8 Ballroom O</p> <p>Manipulatives in Middle School? Absolutely!</p> <p>Are you looking for ways to help your students develop a strong conceptual understanding in math and to better engage them in their learning? Discover benefits of manipulatives as well as a variety of ways to use manipulatives.</p> <p>Speaker: Kevin Dykema Mattawan (MI) Consolidated Schools - Mattawan MS</p>
<p>25 11:00 AM - 12:00 PM Teacher Coaching K-5 Harbor Side 304</p> <p>Teaching Early Numeracy to Children with Developmental Disabilities</p> <p>This session will discuss Systematic Instruction to help children develop early numeracy skills. Assessment materials and lesson plans based on the books: Teaching Early Numeracy to Children with Developmental Disabilities and Numeracy for all Learners will be examined.</p> <p>Speaker: Tim Harms Minnesota State University Moorhead</p>	<p>30 11:00 AM - 12:00 PM 9-12 French River 1</p> <p>You Probably Need More Probability!</p> <p>This session provides exploration into engaging probability scenarios to utilize in Statistics and Probability courses. Classroom ready problems that incorporate The Law of Total Probability, Bayesian statistical techniques and connections to matrix operations are all provided.</p> <p>Speaker: Susan Baloun SMU-MN Winona Campus</p>

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<p>31 11:00 AM - 12:00 PM 6-8 French River 2</p> <p>Instructional Routines to Motivate and Engage Students</p> <p>All students struggle. Productive struggle is encouraged and expected! Yet, some students struggle unproductively more than others. How can we support the students without lowering the cognitive demand? In this session, experience instructional routines to support all learners.</p> <p>Speakers: Jeremiah Morgan, Nicole Goerges CPM Educational Program</p>	<p>35 1:30 PM - 2:30 PM 9-12 Harbor Side 203</p> <p>AP Precalculus using Thinking Classroom Strategies</p> <p>Come learn about the AP Precalculus curriculum combined with instructional changes we made in our second year of embracing BTC (Building Thinking Classroom) strategies. Specific lessons will be shared showing how AP standards were taught with minimal direct instruction.</p> <p>Speaker: Rebecca Young Mounds View School District - Irondale HS</p>
<p>32 11:00 AM - 12:00 PM General Session Split Rock 2</p> <p>Help!--My teaching coworker hates math, now what?</p> <p>In a 2006 study, 63% of ELED majors said they have a negative association with mathematics. We will discuss strategies from math leaders on how we break the "I don't like..." cycle. Use of manipulatives and research. Laughter optional.</p> <p>Speaker: Christine Quisley Southwest Minnesota State University - College of Education</p>	<p>36 1:30 PM - 2:30 PM Harbor Side 204</p> <p>Equitable Mathematics Instruction the "Rights of the Learner"</p> <p>Do learners have rights? What rights do they have? Come and explore how the "Rights of the Learner" support equitable mathematics instruction and how our teaching practices can ensure that the rights of each and every learner are acknowledged, respected, and met. Connections will be made to the ICUCARE Framework.</p> <p>Speaker: Dawn Dibley Retired - ISD 196 - Rosemount/Apple/Valley/Eagan</p>
<p>33 11:00 AM - 12:00 PM College Registration Area</p> <p>Disability, Accommodations and Academia</p> <p>Information about students with disabilities, Americans with Disabilities Act (ADA), academia, and what all teachers need to know about accommodations. Updates and discussion about current events involving (higher) education and disability.</p> <p>Speaker: Lee Merrick</p>	<p>37 1:30 PM - 2:30 PM 3-5 Harbor Side 302</p> <p>When is skip counting more than skip counting?</p> <p>Engage in tasks that explore how skip counting provides an entry point for facilitating students' deeper understanding of mathematics. Task investigations will examine how skip counting strategies lead to developing number, operation, and algebraic reasoning concepts.</p> <p>Speaker: Kay Wohlhuter University of MN Duluth</p>
<p>E2 11:00 AM - 12:00 PM 3-5 Exhibit Hall</p> <p>Solving the Fractions Problem: From Research to Classroom</p> <p>Fraction understanding is a critical aspect of mathematics education, and its mastery has a profound impact on students' mathematical development. In this session, we will research based best practices for teaching fractions and Frax, an online resource.</p> <p>Speaker: Patty Low ExploreLearning</p>	<p>38 1:30 PM - 2:30 PM 3-5 Harbor Side 303</p> <p>Multiplication: What makes it distinct from addition?</p> <p>Multiplication is distinct from addition. It requires making units of units, monitoring and coordinating unit transformations, and thinking in scale. Using student work, we analyze the attributes of multiplication and explore instructional tasks that support students' progressions to think multiplicatively.</p> <p>Speaker: James Brickwedde Project for Elementary Mathematics</p>
<p>34 1:30 PM - 2:30 PM 9-12 Harbor Side 202</p> <p>Standards Based Grading for Mastery: A Blended Approach</p> <p>Standards-Based Grading is part of a broader topic of Grading for Growth. Mastery Learning works well for tasks with clearly defined and measurable objectives. The skills in the 8SMPs require a different feedback and assessment loop, which will be discussed.</p> <p>Speaker: Mike Weimerskirch University of Minnesota Twin Cities</p>	<p>39 1:30 PM - 2:30 PM PK-2 Harbor Side 304</p> <p>Safe Math Spaces: Creating a Culture for Learning</p> <p>With so many needs in the classroom, it is hard to know how to approach tier one instruction in a way that ensures success of all learners. In this session, we will talk about how to set up safe, inclusive, and rigorous math environments in our classrooms where kids can feel understood, challenged, and accepted in their classroom space.</p> <p>Speaker: Tiffany Payne Minneapolis Public Schools - Nellie Stone Johnson</p>

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<p>40 1:30 PM - 2:30 PM 6-8 Harbor Side 305</p> <p>Uniting Academic and Behavioral Math Interventions - Remedial Courses</p> <p>This session is intended for remedial math course teachers and MTSS support staff. Solving the skill or will dilemma is especially difficult after Covid. Specific strategies and materials for supporting EL, Sped, and reluctant learners of mathematics will be shared.</p> <p>Speaker: Carissa Simonet Anoka Hennepin - MS - Fred Moore</p>	<p>45 1:30 PM - 2:30 PM 6-8 French River 2</p> <p>Making Math Come Alive with Manipulatives and Activities</p> <p>Participants will experience hands-on activities in data collection, game simulation, probability, and integer operations. This session is very interactive and the participants will leave with activities that create a high level of engagement and build equity among their students.</p> <p>Speakers: Becki Saunders, Cheryl Tucker CPM Educational Program</p>
<p>41 1:30 PM - 2:30 PM General Session Ballroom L</p> <p>Providing Equitable Math Practices through Cultural Relevance</p> <p>Scores from the National Assessment of Educational Progress suggest that if current educational practices in math classrooms remain the same, the achievement gap between Caucasians and African descent learners will be eliminated by around 217 years. Teachers must be equipped with methods to conduct equitable instruction that is culturally relevant.</p> <p>Speaker: Dr. India White Big Ideas Learning/National Geographic Learning</p>	<p>46 1:30 PM - 2:30 PM 9-12 Split Rock 1</p> <p>Teaching Inverses – Ideas You Have Not Used ... YET!</p> <p>Creative innovative ideas for teaching/learning how to explore and conceptually understand forming inverses of relations and functions and their properties. Including trig inverses. Cleverly use technology to help visualize inverses. Guaranteed: you will learn new teaching and learning ideas!</p> <p>Speaker: Tom Reardon Fitch High School</p>
<p>42 1:30 PM - 2:30 PM General Session Ballroom M/N</p> <p>Creating a District/School Plan for Math Standards & Instruction</p> <p>This session will provide a template for districts or schools to use to create math teams to lead the work of strengthening current instruction around the 2007 math standards and creating a plan for the next 5 years to fully implement the 2022 Math Standards that is unique to the needs of each site. The template has links for districts to learn more connected to research based resources for making decisions about instruction K-12.</p> <p>Speaker: Sara Van Der Werf Minnesota Department of Education</p>	<p>47 1:30 PM - 2:30 PM General Session Split Rock 2</p> <p>Implementation Plan for Building Thinking Classrooms</p> <p>In this session we will present a sample implementation guide for Building Thinking Classrooms as well as discuss the 14 practices.</p> <p>Speakers: Sarajane Monjeau, Emilee Fremstad South St. Paul Secondary</p>
<p>43 1:30 PM - 2:30 PM General Session Ballroom O</p> <p>Finding Math in All Cultures</p> <p>In this session, we will explore the intersection of mathematics and culture through the Bishop 6 (counting, measuring, designing, explaining, playing, and locating) We will learn more about the Bishop 6 and explore ways you can use them in your classroom. You will also learn about cultural interviews and conduct a live interview.</p> <p>Speakers: May Vang, Jessica Strom St. Paul Public Schools, Win-E-Mac</p>	<p>48 1:30 PM - 2:30 PM College Registration Area</p> <p>Standards-Based Grading in Calculus</p> <p>Standards-based grading (SBG) allows students to master topics and concepts at their own pace. This session will detail the use of SBG in calculus. Participants will leave with their class blocked into topics and with tips for effectively implementing SBG.</p> <p>Speakers: Kristi Meyer, Tova Brown Wisconsin Lutheran College</p>
<p>44 1:30 PM - 2:30 PM 9-12 French River 1</p> <p>Getting Started with TI 84 and Python Coding</p> <p>In this session we will cover the basics of coding in Python using the TI-84 Python calculator. No experience is necessary.</p> <p>Speaker: Lisa Conzemius Clinton Graceville Beardsley HS</p>	<p>E3 1:30 PM - 2:30 PM General Session Exhibit Hall</p> <p>Make Inquiry Learning Resources for your Classrooms</p> <p>Dive into the dynamic realm of inquiry-based learning at our Illustrative Math Session. Explore innovative strategies and collaborative tools, equipping math teachers with engaging resources that ignite curiosity and foster a deeper understanding of mathematical concepts in classrooms</p> <p>Speakers: Cecily Klein, Scott Mader Imagine Learning</p>

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49 General Session 1:30 PM - 3:00 PM St. Louis River Room "Pouring" Concrete into the Thinking Classroom Building Concrete Representations to transition to A Building Thinking Classroom. Focused on using manipulatives to go from Concrete, to Representational, to Abstract thinking using the Thinking Classroom Philosophy. Speakers: Rocky LaBlanc, Kurt Becker, Kyle Bendson Crosby-Ironton School District - Cuyuna Range Elem	54 3-5 2:45 PM - 3:45 PM Harbor Side 203 Building Thinking Classrooms Strategies and the Unexpected Benefits What are expected outcomes from implementing Building Thinking Classrooms strategies? Come engage in tasks, identify expected outcomes, and consider the unexpected benefits of the Building Thinking Classrooms strategies. Speakers: Kristin Cayo, Liz Stamson Eden Prairie Schools - Forest Hills Elem
50 General Session 1:30 PM - 3:00 PM Gooseberry Falls 1 Fostering an Engaged Math Classroom with Vertical Learning How can we create a math classroom that engages our students in their own learning? What does an engaged classroom look like? Come find out how I use vertical learning and other tools to help students make connections in the math world. Speaker: Mike Floersch ISD 196 - Valley MS of Stem	55 3-5 2:45 PM - 3:45 PM Harbor Side 204 Developing Fluency with Fractions Come learn instructional principles for developing fluency with fractions. We will model routines and activities for introducing and developing deeper fraction understandings and highlight key instructional decisions. Be ready to engage with your peers and have fun with fractions. Speakers: Terry Wyberg, Christy Pettis University of Minnesota
51 9-12 1:30 PM - 3:00 PM Gooseberry Falls 2 Sacred Geometry - Islamic Geometry & Sangaku Increase your cultural competence by learning about sacred geometry from cultures around the world. This is a hands-on session where participants will create tessellations inspired by Mudejar tilings (Spain) and Sangaku (Japan). Learn to use these projects with students - student work will be on display! Speaker: Jonathan Osters The Blake School	56 3-5 2:45 PM - 3:45 PM Harbor Side 302 Multiplicity Lab - One Great Resource, Multiple Uses! Come to this interactive session where you will experience math using the awesome resource Multiplicity Lab! You will participate in math activities and learn about the multiple ways to engage your math learners with this resource which can be used for math talks, openers to a unit, formative assessment, showing math in the real world, critical thinking and more! For grades K-5 and special education. Speaker: Tracey Beaverson Hopkins Public Schools - Gatewood Elem
52 3-5 1:30 PM - 3:00 PM Gooseberry Falls 3 Why Don't my Students know their Math Facts? Multiplication facts are the foundation for fractions, decimals, & algebra. Too often, students struggle to see connections in the facts. Join me in this hands-on session that investigates deriving multiplication facts with conceptual understanding. Speaker: Cassandra Turner NA	58 9-12 2:45 PM - 3:45 PM Harbor Side 304 My Top 12: A Dozen Instructional Greatest Hits During 28 years of teaching, I've accumulated several "Greatest Hits" - instructional practices that I stumbled upon and wish I had known earlier in my career. I'll share a dozen of them with you, 5 minutes for each! Speaker: Mike Reiners Christ's Household of Faith School
53 6-8 2:45 PM - 3:45 PM Harbor Side 202 A Deep Dive into Area and Area Formulas From obscure area formulas, to the historical development of area, to the conceptual stages of area development in children, to creating connections between area formulas and their underlying visual structure; this session explores things you might not know about area. Speaker: Nic Gilbertson Winona State University	59 Adult Learner (ABE) 2:45 PM - 3:45 PM Harbor Side 305 Adult Education Secondary Credentials: What are they? Ever wonder what high school equivalency (HSE) options are available to adult learners, or what math adult learners study to earn a secondary credential? Learn about three options available to students in MN who do not earn a traditional high school diploma. Speaker: Lindsey Pust Adult Education (ABE)

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60 PK-2 Story Cards: Finding Personal Connections A Story Card is a 5 by 8 inch card that includes manipulatives. In this session, we will learn how to have families create these cards that bring personal interests/cultures to the math we are teaching daily. We will make our own cards and discuss ways to use them in the classroom. Connections will be made to use Culturally relevant curricula in the ICUCARE Framework. Speakers: Laura Wagenman, Jessica Strom Osseo Area Schools - Crest View Elem	2:45 PM - 3:45 PM Ballroom L	65 9-12 Quantitative Literacy: Why Should We Care? Learning to answer questions about numbers in "grown up" contexts has not been part of the high school curriculum, leaving students unprepared to deal with information related to decisions they will make in their lives and about their world. Speaker: Gail Burrill Michigan State University	2:45 PM - 3:45 PM Split Rock 1
61 General Session Questions and Answers with the MDE Math Team Participants can ask questions and get answers from the MDE Standards, Instruction, and Assessment Division mathematics team. Speakers: Jennifer Dugan, Angela Hochstetter, Mike Huberty; Sara Van Der Werf Minnesota Department of Education	2:45 PM - 3:45 PM Ballroom M/N	66 9-12 Logic Puzzles for Teaching Proof Now with more proof! We'll work on some puzzles which are easily accessible, teach deduction and proof, and most importantly, are really fun! You'll leave with some ideas for tasks and structures for a unit. Speaker: Will Roberts ISD 196 - Falcon Ridge MS	2:45 PM - 3:45 PM Split Rock 2
62 General Session Choosing to See Book Club Conversation Join the Region Directors and fellow colleagues in conversation about "Choosing to See"! This is a follow-up session with the book club Region Directors hosted this winter and spring, but all are welcome! Speakers: Alexis Wolf, Mark Nechanicky John Glenn Middle School; Lakeview Elementary School	2:45 PM - 3:45 PM Ballroom O	67 College Math Placement in MinnState The placement process and course offerings are changing regarding placement of new students at MinnState colleges and universities. We will discuss the updates to the placement policy, procedure, timeline, and Speaker: Beth Hentges	2:45 PM - 3:45 PM Registration Area
63 9-12 AP Calculus Review Strategies and Activities There are 20 school days until the 2024 AP Calculus Exam. Help your students show what they know by planning review activities that bolster their skills. Tips for writing strong FRQ responses from a long time reader and question leader. Speaker: Karen Hyers ISD 622 - Tartan HS	2:45 PM - 3:45 PM French River 1	E4 6-8 Unleashing Mathematical Inquiry: Empowering Students' Learning Journey Inquiry lessons empower students to engage and ask questions while fostering critical thinking skills. Using guided inquiry lessons and simulations promotes deeper understanding. Through inquiry, students become active participants in their learning which leads to meaningful and effective lessons. Speaker: Patty Low ExploreLearning	2:45 PM - 3:45 PM Exhibit Hall
64 6-8 Growing Student Collaboration In this session, participants will experience a variety of activities that model instructional strategies and team structures that create collaborative classroom environments. Participants will walk away with a variety of strategies that support access and engagement for all students. Speaker: Lisa Comfort CPM Educational Program	2:45 PM - 3:45 PM French River 2	68 3-5 Adapting Curriculum Materials To Support Student Thinking Curriculum materials are often viewed as constraints, limiting teachers' capacity to respond to children's mathematical thinking and support the development of positive mathematics identities. I will share ways that curriculum materials can instead be a tool for responsive and equitable teaching through strengths-based assessment and differentiation Speaker: Michael Wallus The Math Learning Center	3:30 PM - 5:00 PM St. Louis River Room

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<p>69 3:30 PM - 5:00 PM 9-12 Gooseberry Falls 1</p> <p>Films, Fruits, and folklore: Introducing Ideas of Machine Learning to High School Students</p> <p>Participants will be introduced to a common algorithm used in machine learning for classification. We will explore this algorithm in a set of hands-on activities that draw from high school math content in a variety of contexts.</p> <p>Speakers: Andrew Zieffler, Chelsey Legacy, Regina Lisinker University of Minnesota</p>	<p>74 4:00 PM - 5:00 PM 9-12 Harbor Side 204</p> <p>Equity And Access Example in High School Math Class</p> <p>This is a practical session on using technology in creating an equitable learning environment in online Advanced Algebra class.</p> <p>Speaker: Abir Ismail Minneapolis Public School Online</p>
<p>70 3:30 PM - 5:00 PM 6-8 Gooseberry Falls 2</p> <p>Using Mathematical Language Routines To Foster Belonging And Value In All Students</p> <p>In this session, we will examine the interdependency of language learning and mathematics learning through the use of mathematical language routines (MLRs). Together, we will identify ways to embed MLRs across 6-8 and Algebra 1 curricular resources to foster a sense of belonging and value in students by providing them with access to rich mathematical discourse, elevating their culturally and linguistically diverse backgrounds, and supporting their sense-making and meta-awareness.</p> <p>Speaker: Nadine Moulta-Ali Great Minds</p>	<p>75 4:00 PM - 5:00 PM 3-5 Harbor Side 302</p> <p>Letters from Summer Math Camp</p> <p>After attending the YouCubed Summer Math Workshop, we designed a 6-week summer math camp based on the ideas presented. Come learn about the format, tasks and take aways as we reflect on summer math camp.</p> <p>Speakers: Stephanie Whitney, Tracey Beaverson Consultant</p>
<p>71 3:30 PM - 5:00 PM 9-12 Gooseberry Falls 3</p> <p>Connection Matters: Integrating Mathematics with Community Building</p> <p>Community building activities can help students feel more comfortable working together while learning mathematics. In this session, we will engage in several team and class building tasks that parallel math-specific activities to promote collaboration and engagement from students.</p> <p>Speaker: Megan Schmidt Anoka-Hennepin HS</p>	<p>76 4:00 PM - 5:00 PM K-5 Harbor Side 303</p> <p>Gaining Fluency With Single-digit Combinations K-5</p> <p>Classroom strategies nurturing fluency with single-digit combinations (basic facts) in addition, subtraction, multiplication, and division emphasizing derived strategy development are explored. Algebraic properties and relational thinking emerge concurrently with this approach and serve as a bridge to multi-digit operations.</p> <p>Speaker: James Brickwedde Project for Elementary Mathematics</p>
<p>72 4:00 PM - 5:00 PM General Session Harbor Side 202</p> <p>Effective Practices of Math Vocabulary Instruction</p> <p>Participants will learn the science behind this research based method of teaching math vocabulary. This method supports exceptional learners and time will be provided to collaborate and practice so you are ready to bring it back to your classroom.</p> <p>Speakers: Carla Buesseler, Dave Sauer Forest Lake Area Schools - Wyoming Elem.</p>	<p>77 4:00 PM - 5:00 PM PK-2 Harbor Side 304</p> <p>Reimagining Story Problems</p> <p>This collaborative session will give educators access to a diverse collection of children's picturebooks that could be used to engage students in mathematical play and problem solving. A model lesson will be demonstrated and participants will have time to explore books and brainstorm activities that they could engage their students with to share in the joy of literacy and mathematics.</p> <p>Speaker: Briana Bancroft Northern Michigan University</p>
<p>73 4:00 PM - 5:00 PM 9-12 Harbor Side 203</p> <p>Thinking Tasks in the Geometry Classroom</p> <p>Geometry naturally lends itself to a thinking classroom that engages students and encourages collaboration. This session provides geometry teachers with tools to create thinking tasks using their current curriculum. Come excited to transform and leave with tasks for your class!</p> <p>Speaker: Alexa Kaplan Mounds View - Irondale</p>	<p>78 4:00 PM - 5:00 PM General Session Harbor Side 305</p> <p>The Power of a Question</p> <p>Have you ever had someone ask you a question where you felt empowered or maybe the opposite? Join me as we dive into the "Power of a Good Question." How to use questions to empower students, engaging them in learning.</p> <p>Speaker: Christine Quisley Southwest Minnesota State University - College of Education</p>

Friday, April 12th

79 4:00 PM - 5:00 PM
 General Session Ballroom L
Seeing the Power of Grit in the Math Classroom!

Grit is a key factor in achieving success and overcoming obstacles. It is the ability to persevere and maintain a long-term goal despite setbacks and challenges. We will use Dr. White's framework for increasing teacher grit levels throughout the school year and provides tips for students to develop grit.

Speaker: Dr. India White
 Big Ideas Learning/National Geographic Learning

83 4:00 PM - 5:00 PM
 6-8 French River 2
Independent Learners Depend on All of Us

The goal of this session is to equip participants with strategies to nurture independent learners while embracing the individual assets of students. Gain valuable insights on how to foster an environment that promotes independent learning.

Speaker: Jeremiah Morgan
 Formerly, Bloomington Public Schools

80 4:00 PM - 5:00 PM
 General Session Ballroom M/N
'Identifying Patterns' A Common Math & Science Practice

The 2019 MN Science Standards Practice #4 - Analyze and Interpret Data - is similar to the 2022 Math Standards Practice #7 - Look for and Make Use of Structure. Come hear from the MDE Science and Math Specialists about how 'Identifying Patterns' allows educators and students to discern and reveal underlying structure to empower us as powerful decision makers.

Speakers: Sara Van Der Werf, Angie Kolonich
 Minnesota Department of Education

84 4:00 PM - 5:00 PM
 9-12 Split Rock 1
Analog Clock: Arc Lengths, Sector Areas, Hands Coincide?

12 activities include: Angle of the hands of a clock at 1:25? Distance traveled by the minute or hour hand of a clock in x hours? Area of a sector and segment at 10:38? At what exact times do the minute and hour hands completely coincide? And look for patterns. Make time for this session!

Speaker: Tom Reardon
 Fitch High School OH

81 4:00 PM - 5:00 PM
 6-8 Ballroom O
Building Community Through Doing Math

How do you use math to build relationships, teamwork, group work, and mindset? Come, gather, and share ideas on how we can create thriving math communities in our classrooms.

Speakers: May Vang, Kristen Helland
 St. Paul Public Schools

85 4:00 PM - 5:00 PM
 General Session Split Rock 2
Writing Lesson Plans for the Thinking Classroom

In this session we will walk through a couple of sample lesson plans for Building Thinking Classrooms then have time for collaborating for you to create some of your own lesson plans. Please feel free to bring your own curriculum or use our provided textbooks.

Speakers: Emilee Fremstad, Sarajane Monjeau
 South St. Paul Secondary

82 4:00 PM - 5:00 PM
 9-12 French River 1
Statistics, Food and Technology

Come experience Statistics, Food and Technology - This session will share ideas used with students that help make statistics more interesting. Ideas can be used in AP statistics or high school statistics. TI 84 and TI Nspire technology will be used.

Speaker: Lisa Conzemius
 Clinton Graceville Beardsley HS

86 4:00 PM - 5:00 PM
 College Registration Area
MinnMATYC Annual Business Meeting

MinnMATYC members and others who may be interested should join us for our annual meeting. We'll review this past year and talk about plans for the future.

Speaker: Matt Deidrick

MCTM Regional Networking Sessions 5:15 pm - 6:00 pm

Region 1	St. Louis River	Region 5	Split Rock 1
Region 2	Ballroom L	Region 6	Ballroom M/N
Region 3	Gooseberry Falls 1	Region 7	Gooseberry Falls 2
Region 4	Ballroom O	Region 8	Gooseberry Falls 3

Minnesota Math Mixer 6:00 pm - 7:00 pm

Ballroom J/K - Please attend for food and fun with other MCTM members

Saturday, April 13th

87 General Session A Fulbright Journey From Start to Finnish Engage in discussion with a current Fulbrighter completing her math research from Jyväskylä, Finland. Learn about the different Fulbright programs available for US teachers, how to apply, and the opportunity to make a positive impact on global math education. Speakers: Jill Bue, Mike Jordahl Roseville Area Middle School	8:15 AM - 9:15 AM Harbor Side 202	92 6-8 Teaching about Our World with Mathematical Models Discover activities that explore trends in the environment, global population and more using models, manipulatives and lively group work. Build middle school math skills while exciting students about math connections to their lives and current global issues. Speaker: Joan Kwako University of Minnesota Duluth	8:15 AM - 9:15 AM Harbor Side 304
88 9-12 Teaching Mathematics in a World with AI This session will be an overview of early ways in which Artificial Intelligence (AI) is impacting the teaching and learning of mathematics. Participants will see a variety of examples of how teachers and students are or might soon use AI. Speaker: Aran Glancy Hill-Murray School	8:15 AM - 9:15 AM Harbor Side 203	93 Adult Learner (ABE) Cultivating Mathematical Literacy for English Language Learners We will look at how to effectively address literacy and numeracy in the same classroom. You will see and experience routines and strategies that your presenter has used with her ESL students to support their numeracy skills and language development. Speaker: Cynthia Schultz St. Cloud Area School District	8:15 AM - 9:15 AM Harbor Side 305
89 3-5 Digging into Dyscalculia Dyscalculia is a specific learning disability affecting approximately 5% of students. This session will explore definitions of dyscalculia, learning difficulties associated with dyscalculia, and specific interventions that have been found to be successful in remediating the difficulties experienced by students with dyscalculia. Connections will be made to the ICUCARE Framework. Speaker: Dawn Dibley Retired - Rosemount/Apple Valley/Eagan	8:15 AM - 9:15 AM Harbor Side 204	94 General Session Seeing Beyond Barriers through Cross-Cultural Communication and Interhumanism The U.S. NAEP Data for 2022 reports have shown that there has been a cultural disconnect, with eighty percent of educators being Caucasian, needing support when serving 70 percent of learners of diverse ethnic descents. There has been a need for teachers to have options for how to bridge the gap. Speaker: Dr. India White Big Ideas Learning/National Geographic Learning	8:15 AM - 9:15 AM Ballroom L
90 9-12 Journey to Standards Implementation We will explore the 2022 Math Standards. I will share the experience of being on the Committee for writing High School Math Standards and the Alternative MCA Testing. We will look at some technology that can help with the process. My background includes classroom and online Teaching. Speaker: Connie McTavish MN Transitions Charter School - MN Virtual Schools	8:15 AM - 9:15 AM Harbor Side 302	95 General Session MDE Feedback Session: Assessment Report Redesign MDE wants to hear from you! Your ideas on how assessment reports can better help teachers and site decision making. Come and give MDE your ideas on how the MCA reports can better provide the information educators need to help inform decision making. Speakers: Nichole Laven, Jennifer Dugan, MDE Team MDE	8:15 AM - 9:15 AM Ballroom M/N
91 3-5 Data Analysis & Statistics with Third Graders What makes good statistical questions? What do students attend to in the data? What's the difference between statistical and mathematical questions? Explore work of third graders this past year using new national and state standards as a guide. Speaker: James Brickwedde Project for Elementary Mathematics	8:15 AM - 9:15 AM Harbor Side 303	96 General Session Balancing Work and Home (a beginner's guide) Teaching is tough--there is no doubt. Balancing work life and personal life can be difficult, especially during the first few years of teaching. This session will provide ways to start having a better balance between work and home. Speakers: Kristen Helland, May Vang Barnum Public Schools - ISD 91	8:15 AM - 9:15 AM Ballroom O

Saturday, April 13th

<p>97 8:15 AM - 9:15 AM PK-2 French River 1</p> <p>Watson, I Have Found the Missing Link! Let Me Draw You a Picture!</p> <p>So, you invested time modeling with manipulatives, move to formal algorithms and students still make the same errors. This interactive session will reveal the missing link between manipulatives and formal symbolic algorithms. Focus will be on Addition and Subtraction.</p> <p>Speaker: Pamela Richards STEMscopes by Accelerate Learning Inc.</p>	<p>102 8:15 AM - 9:15 AM 9-12 French River 2</p> <p>Leveraging formative assessment to support successful summative assessments</p> <p>Are you tired of reacting to failures? Why not strategically use problems assigned to prepare all students for success? Participants will get hands-on experience with a process using these problems to support successful student learning. Be proactive vs reactive!</p> <p>Speakers: Cheryl Tucker, Becki Saunders CPM Educational Program</p>
<p>98 8:15 AM - 9:15 AM 9-12 Split Rock 1</p> <p>What's your STEM Identity? Come Explore and make connections</p> <p>This session will allow participants to explore some Science ideas on graphing calculators and also take a small quiz to discover your STEM identity. A discussion about connecting with others to grow your STEM identity will also happen.</p> <p>Speaker: Lisa Conzemius Clinton Graceville Beardsley HS</p>	<p>103 8:15 AM - 9:15 AM 6-8 Gooseberry Falls 1</p> <p>Supporting EL Learners in 6-8 Mathematics</p> <p>Supporting English language learners means embedding reading strategies in the mathematics classroom. Strategies shared will increase the likelihood of an entry-point in order to engage in problem solving. Strategies include: leveling text, identifying context clues, and math vocabulary development.</p> <p>Speaker: Carissa Simonet Anoka Hennepin MS for the Arts</p>
<p>99 8:15 AM - 9:15 AM 6-8 Split Rock 2</p> <p>Middle School Math: Building Your Own Thinking Classroom</p> <p>Come ready to learn and see real examples of scaffolding of consolidation in a thinking classroom. Participate in hands on activities of a lesson in the thinking classroom and building your own thin slicing tasks and closing lesson materials.</p> <p>Speaker: Amanda Rutanen ISD 318 - Grand Rapids MS/HS</p>	<p>104 8:15 AM - 9:15 AM 9-12 Gooseberry Falls 2</p> <p>Developing an active math community where students thrive</p> <p>Math is not a spectator sport! All students should see themselves as doers of math by engaging in productive tasks every day. Imagine Learning Illustrative Mathematics offers an instructional design that puts students at the center of their learning. This session with model digital and hands-on activities that build thinking, collaboration, grit, and confidence</p> <p>Speakers: David Lyon, Scott Mader North St. Paul, Maplewood, Oakdale School District</p>
<p>100 8:15 AM - 9:15 AM College Registration Area</p> <p>Learning Opportunities Through Exam Reflections</p> <p>Many students focus more on grades than learning. Learn how to engage students in assessment feedback through exam wrappers. Exam wrappers create learning opportunities where students identify their strengths and weaknesses, reflect on study habits, analyze errors, and set goals.</p> <p>Speaker: Ashley Priem</p>	<p>105 8:15 AM - 9:15 AM 9-12 Gooseberry Falls 3</p> <p>Making Sense of Logarithms</p> <p>Logarithms are a stumbling block for students. Participants will explore an activity for developing the concept of logarithms, discuss strategies to help students grapple with ideas related to logs, and investigate how they are used in statistical modeling.</p> <p>Speaker: Gail Burrill Michigan State University</p>
<p>101 8:15 AM - 9:15 AM 9-12 St. Louis River Room</p> <p>The 3D Geometry of the Uniform Polyhedra</p> <p>The 75 uniform polyhedra include the 5 Platonic solids, the 13 Archimedean solids, the four regular star polyhedra of Kepler and Poincaré, plus 53 more quasi-regular solids. Colorful magnetic and paper examples are included. Symmetry is an important related topic.</p> <p>Speaker: Dan Rau University of Wisconsin-Superior, retired</p>	<p>106 9:25 AM - 10:25 AM General Session Harbor Side 202</p> <p>(Intentional) Lies and Errors</p> <p>Students love finding errors in work by the teacher. What if the teacher made the error intentionally? A lie from a teacher could serve a purpose – if done correctly, it invites thinking and discourse and models student thinking.</p> <p>Speaker: Jered Bright University of Minnesota Rochester</p>

Saturday, April 13th

107 6-8 9:25 AM - 10:25 AM Harbor Side 203	112 Adult Learner (ABE) 9:25 AM - 10:25 AM Harbor Side 305
Tools Not Toys: Making Algebra Tiles Meaningful Want increased student understanding of solving equations? Participants will have the opportunity to learn how to use algebra tiles effectively in their classrooms. You will be able to walk away with instructional slides and tools that are ready to use. Speakers: Emily Essen, Bobbi Anderson Anoka Hennepin School District	Experience the Standards for Mathematical Practice Through Origami Come and try the Standards for Mathematical Practice (the Practices) for yourself! Reflect on HOW you employ certain habits of mind to complete an origami task. Then, explore a classroom routine that can develop the Practices in your learners. Speakers: Genna Hart, Lindsey Pust Moorhead Area Public Schools - ABE
108 9-12 9:25 AM - 10:25 AM Harbor Side 204	113 3-5 9:25 AM - 10:25 AM Ballroom L
Process Oriented Guided Inquiry Learning (POGIL) Activities for PreCalculus POGIL activities follow a learning cycle designed to encourage critical thinking and problem-solving. Several activities will be demonstrated that allow students to explore algebra, trigonometry and probability in interesting settings such as Pascal's triangle, piston motion and area transformations. Speaker: Mike Weimerskirch University of Minnesota Twin Cities	Manipulatives, Real and Virtual: Effectively Teaching the Standards Are you looking for ways to help your students develop a strong conceptual understanding in math and to better engage them in their learning? Discover benefits of manipulatives as well as a variety of ways to use manipulatives. Speaker: Kevin Dykema Mattawan (MI) Consolidated Schools - Mattawan MS
109 6-8 9:25 AM - 10:25 AM Harbor Side 302	114 General Session 9:25 AM - 10:25 AM Ballroom M/N
Share your top websites and apps! This session will be structured as an informal sharing of favorite websites, software or applications. Share a link or site and discuss a technology activity that has worked well for you. Speaker: Heidi Hansen Bemidji State University	2022 MN Math Standards Update The MN 2022 draft Math Standards are predicted to be fully implemented in the 2027-28 school year. Come hear about the 5 biggest shifts in the standards and what you and your district can do across K-12 mathematics. What are things you can implement now that connect to both the 2007 and 2022 math standards? Learn about upcoming resources and trainings. Speakers: Sara Van Der Werf, Jennifer Dugan Minnesota Department of Education.
110 Teacher Coaching 6-8 9:25 AM - 10:25 AM Harbor Side 303	115 General Session 9:25 AM - 10:25 AM Ballroom O
Using MCA Benchmark Reports to Identify Curriculum Needs Use the MCA Benchmark Reports to identify strengths and weaknesses within your current Math Curriculum. Using these reports you will be able to identify the strengths of your curriculum and identify concepts that will need to be improved or supplemented. We will also be exploring MnDOE resources that will help you write assessment questions that mirror those questions that students may see on the Speaker: Andy Root Richfield Middle School	FAQs about Building Thinking Classrooms This session will address the most common questions teachers ask as they start using the Thinking Classroom practices: finding and creating tasks, classroom management, and wrapping up a lesson with consolidation. Speaker: Jessica Strom Win-E-Mac
111 9-12 9:25 AM - 10:25 AM Harbor Side 304	116 3-5 9:25 AM - 10:25 AM French River 1
3D Printing for the (math) Classroom Your school has a 3d printer? That's so cool! But what can you actually do with it? This session is aimed at newcomers to 3d printing who want to try out this neat resource. Speaker: Will Roberts ISD 196 - Falcon Ridge MS	Why you should explicitly teach math vocabulary This presentation will cover the rationale for teaching math vocabulary explicitly including how it can benefit math achievement. Research is beginning to emerge about the connections between brain function and math achievement. This session will provide an introduction to the research to date. Also, ideas for providing explicit vocabulary instruction in your classroom will be shared. Speakers: Kathy Berlin Hamline University

Saturday, April 13th

117 9:25 AM - 10:25 AM
3-5 Split Rock 1

Building Thinking Classrooms in an Elementary Setting

An interactive introduction to Building Thinking Classrooms in an elementary setting. This session will have an emphasis on developing thin slices using a curriculum and tips for distributing them to students.

Speakers: Jill Wendland, Whitney Jones

Bemidji Area Schools - Gene Dillon Elementary

118 9:25 AM - 10:25 AM
9-12 Split Rock 2

Intriguing Minimization Problem with Many Solutions: Geometry to Calculus

Investigate multiple solution paths – with technology and without. With calculus and without. Creatively use graphing technologies to help create modeling equations and test that they are correct. Be amazed at the explanations using geometry through calculus. Materials and solutions supplied.

Speaker: Tom Reardon

Fitch High School / Youngstown State University (OH)

119 9:25 AM - 10:25 AM
College Registration Area

The Scrubby Bush: Accessible Solutions to Polynomial Equations

Our mathematical future is put into focus with a glimpse of our past. Using synthetic division and ideas from some of history's greatest mathematicians, we demonstrate accessible solutions to polynomial equations. Included is a unique proof of the quadratic formula.

Speakers: Paul Kinion, Scott Anderson

120 9:25 AM - 10:55 AM
PK-2 St. Louis River Room

SPED Math beyond calendar, money and time tests

As the mother of a special needs daughter, I know that math must be accessible to everyone and prepare each for life beyond school. Join me as we experience hands-on activities to engage and promote learning for ALL students.

Speaker: Christine Quisley

Southwest Minnesota State University - College of Education

121 9:25 AM - 10:55 AM
6-8 French River 2

How might we rethink intervention?

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

Speakers: Sharon Rendon, Lisa Comfort

CPM Educational Program

122 9:25 AM - 10:55 AM
9-12 Gooseberry Falls 1

Be Above Average: Teaching Stats for Deeper Understanding

Are you looking for ways to teach statistical inference so that students have more than a trivial understanding of the content? This presentation will introduce how a conceptual approach to teaching statistics through modeling and simulation can deepen students' understanding and enable them to investigate more complex phenomena.

Speakers: Jeffrey Finholm, Kari Johnson, Theresa Gieschen, Andrew Zieffler, Regina Lisinker

Red Wing High School

123 9:25 AM - 10:55 AM
General Session Gooseberry Falls 2

Twist, Turn, Learn: Enhancing Education through Cubes

Dive into 'Twist, Turn, Learn,' a dynamic workshop unlocking the educational potential of Rubik's cubes. Discover strategies to enhance critical thinking, spatial reasoning, and engagement, transforming your teaching approach and energizing the learning experience.

Speakers: Kristin Knowles, Andrew Knowles

Cubing Enrichment Opportunities Inc

124 9:25 AM - 10:55 AM
9-12 Gooseberry Falls 3

Can you BREAK IN?

Have you ever engaged in an escape room experience where you find yourself locked in a room, working with others to unravel a series of puzzles, challenges, and riddles in order to escape? It's an intriguing concept, isn't it? If you're curious to learn more, we invite you to explore our presentation. It shares similarities with an escape room, but instead of breaking out of a room, participants aim to unlock a secured box using a series of resettable locks and boxes. This involves tackling pre-designed challenges, puzzles, and riddles. Bringing the 4 C's (Collaboration, Critical Thinking, Creativity, and Communication) to life, Breaking In challenges students to collaborate as they work through the tasks together.

Speakers: Michelle Bertsch, Wyatt Line, Allie Aadland

Fargo North HS

125 10:35 AM - 11:35 AM
9-12 Harbor Side 202

Activities for a Flipped Statistics Classroom

We will be sharing activities that have been developed for an introductory statistics course utilizing the flipped classroom model. These activities, mainly focusing on visualization, often provide insight into a student's understanding of the topics explored.

Speaker: Kevin Dennis

Saint Mary's University of Minnesota

126 10:35 AM - 11:35 AM
General Session Harbor Side 203

Fabulous Focused Notes

Do your students struggle with taking and using quality notes? I will show you some strategies I used in my classroom to help students build stronger notes and reflect on the note-taking process.

Speaker: Alexis Wolf

North St Paul-Maplewood-Oakdale - John Glenn MS

Saturday, April 13th

127 10:35 AM - 11:35 AM
6-8 Harbor Side 204
Productive Math Struggle implementation in Algebra Class

This session will be a hands on ideas of implementing Productive Math Struggle book in Algebra class. Connections will be made to the ICUCARE Framework.

Speaker: Abir Ismail
Minneapolis Public School - MPS Online

132 10:35 AM - 11:35 AM
9-12 Ballroom L
Wind Racer Re-Revisited

This session explore the "Wind Racer" dice game, what we mean by a fair game, and whether or not it is a fair game. This is a fun activity suitable for a wide range of grade levels!

Speaker: Christopher Smith
Augsburg University

128 10:35 AM - 11:35 AM
9-12 Harbor Side 302
Strategies to Help Students Self-Assess in Math

Explore some methods to help students take ownership over their learning in a high school math class. Includes ideas about assessing mathematical practices, how notes and practice work is graded, and providing choice and support for student groupings.

Speakers: Lindsey Thompson, Clair Watne
Minneapolis Public Schools - FAIR Downtown

133 10:35 AM - 11:35 AM
General Session Ballroom M/N
Using evidence of student learning for equitable instruction

Data-based decision-making has been a trending topic, but what type of data is most useful for educators? Using resources from our online learning course, Minnesota Data and Assessment Literacy (MnDAL), we will explore articles and professional learning activities you can bring back to your teacher teams to plan data dives and PD at your school.

Speakers: Kendra Olsen, Brendan O'Shea
Minnesota Department of Education (MDE)

129 10:35 AM - 11:35 AM
PK-2 Harbor Side 303
Math Vocabulary

Math vocabulary is needed to understand math concepts and develop math skills. This session will explore ways to expand math vocabulary in an elementary classroom.

Speaker: Jenina Rothstein
Buffalo-Hanover-Montrose ISD #877

134 10:35 AM - 11:35 AM
PK-5 Ballroom O
Connect and Reflect For PreK-5 Teachers

"Connect and Reflect" is not just a session; it's a pivotal part of your conference experience. Join other PreK-5 educators as we come together to solidify conference learnings, share insights, and build a community that extends beyond the conference walls.

Speakers: Laura Wagenman, Becky Rahm - MCTM Board Members
MCTM

130 10:35 AM - 11:35 AM
9-12 Harbor Side 304
Coordinatization in Geometry: Access Rather Than Afterthought

Typically, coordinate geometry scenarios are reserved for oft-ignored "Algebra/Geometry Connections" textbook asides or pushed to the end of Geometry units as afterthoughts. Learn to use coordinatization as a vehicle for introducing key geometry concepts, and easing student pain points.

Speaker: Mike Reiners
Christ's Household of Faith School

135 10:35 AM - 11:35 AM
3-5 French River 1
Fraction Routines that Promote Engagement, Reasoning, and Discourse

Come learn engaging instructional strategies and classroom routines that promote deep thinking and lively discussion about fractions with intermediate students. Leave prepared to build your students' number sense and conceptual understanding of fractions.

Speaker: Chris Carlson-Kelm
Mahtomedi #832 OH Anderson Elem

131 10:35 AM - 11:35 AM
6-8 Harbor Side 305
Fact Fluency/Number Sense in Middle School

The strategies I use to support fact fluency and number sense in the 6/7th grade classroom. These strategies have also been successful in students through 12th grade.

Speaker: Suzanne Scheuerlein
Saint Paul Public Schools - Humboldt HS

136 10:35 AM - 11:35 AM
3-5 Split Rock 1
Building a Thinking Classroom

The Thinking Classroom promotes student engagement, discovery, discussion, and more. This is an introductory session to learn how to transform your class into a thinking classroom with multiple access points. Leave with BTC tasks, ideas to integrate BTC into lessons within your curriculum, and resources for rich task ideas.

Speaker: Sarah Donovan
Anoka-Hennepin ISD 11 - Hamilton Elem

Saturday, April 13th

137 10:35 AM - 11:35 AM
9-12 Split Rock 2
Building a Thinking Classroom for AP Calculus

The journey towards implementing a classroom built around student discourse and less teacher-speak in the Calculus classroom. Pushing students to develop concepts without lecture through random groups and vertical whiteboards.

Speaker: David Miller
Detroit Lakes High School

138 10:35 AM - 11:35 AM
College Registration Area
SMART Start: Breaking Diversity Barriers in Mathematics

Historically, mathematics has been the realm of white males and has often felt unwelcoming to diverse student populations. A new program at Minnesota State University Moorhead aims to help break down some of the barriers to achievement that historically marginalized populations experience. In particular, we aim to help BIPOC, LGBTQ, and First Generation Students succeed not just in mathematics, but in college and their ensuing careers.

Speaker: Adam Goyt
Minnesota State University Moorhead

139 11:15 AM - 12:45 PM
General Session St. Louis River Room
The Arc of Arithmetic to Algebra

This interactive session explores the development of number sense and algebraic thinking. Through a variety of manipulatives, participants will experience a learning progression from kindergarten to high school, and how skills developed in the early years prepare students for Algebra 1.

Speaker: Elizabeth Peyser
N/A

140 11:15 AM - 12:45 PM
French River 2
Equitable Teaching with Algebra Tiles

For students to have an equitable entry point, we use algebra tiles to combine like terms, compare expressions and solve equations. You will benefit from practicing the problems in teams while experiencing facilitation and questioning in a collaborative classroom.

Speaker: Nicole Goerges
CPM Educational Program

141 11:15 AM - 12:45 PM
General Session Gooseberry Falls 1
Explore the Power of Place Value

How is place labeling different from place value? How does the understanding of place value impact future learning? This interactive session will deepen our own understanding of place value and provide ideas for engaging students in this conversation!

Speakers: Lindsey Pust, Rebecca Strom
Adult Education (ABE)

142 11:15 AM - 12:45 PM
9-12 Gooseberry Falls 2
Using a GPS System to Approximate Triangle Centers

There are many geographical centers in the United States, including the center of a state and a city. Although it is not an exact method because we are on a sphere, longitude and latitude can be used like a plane coordinate system to produce a flat map. We will use the GPS longitude and latitude coordinates to define points in the coordinate plane for three geographic locations, which determine a triangle. After constructing the triangle centers, we will use an online GPS location finder to determine the geographical location of the triangle centers. Please bring a laptop or tablet. You may use any geometry software program to help construct the triangle centers.

Speaker: Carol Bell
Northern Michigan University

143 11:15 AM - 12:45 PM
General Session Gooseberry Falls 3
Hey! You Put Math in My Play!

And you put play in my math!

In this interactive, hands-on session we'll explore relationships between math and play with a variety of materials; all tested and selected for maximum math-play value! There will be math for all ages and skill levels.

Speaker: Christopher Danielson
MathHappens

144 11:45 AM - 12:45 PM
9-12 Harbor Side 202
Parallel Parabolas: An investigation for algebra through calculus

A search for a curve uniformly distanced from a parabola, led to this surprising topic. The topic is a great extension to the well-studied parabola units in algebra II, introducing elementary calculus with possible extensions for advanced calculus classes.

Speaker: Gene Poole
United Christian Academy

145 11:45 AM - 12:45 PM
9-12 Harbor Side 203
Math Language Routine: Information Gap

Come be engaged in this MLR and learn how to incorporate this routine into your classroom. This MLR will get your students using academic vocabulary, engaging in mathematical discussing and collaborating to solve a problem.

Speakers: Marcy Kickhafer, Graham Litterst
MK math consulting

146 11:45 AM - 12:45 PM
6-8 Harbor Side 204
Unlocking the Joy of Math for Neurodiverse Students

Learn best practices for teaching math to diverse learners & neurodiverse students. This session equips educators with tools for inclusivity & overcoming challenges, emphasizing the strengths all students bring.

Speaker: Gregory Trieste
Amplify Education

Saturday, April 13th

147 6-8 The Power of Projects Projects can offer rich learning opportunities, but can be daunting to plan. We will look at examples from my high school and middle school classes. Walk away with resources and ideas for your classroom. Speaker: Jaclyn LaVanier Saint Paul Public Schools - Battle Creek MS	11:45 AM - 12:45 PM Harbor Side 302	153 6-12 Connect and Reflect For 6-12 Teachers "Connect and Reflect" is not just a session; it's a pivotal part of your conference experience. Join other 6-12 educators as we come together to solidify conference learnings, share insights, and build a community that extends beyond the conference walls. Speakers: Becky Rahm, Sandra Ketterling - MCTM Board Members MCTM	11:45 AM - 12:45 PM Ballroom O
148 PK-2 Low Floor-High Ceiling Creates A Lot of Room for Learning We all have students who need engaging math learning experiences. Low floor/high ceiling tasks allow all students to begin and work at their own level of engagement. Come explore tasks that align with your standards. We will also look at ways to modify existing resources for better engagement. Everyone will leave with many ready to go examples of tasks to take back to their students. Speaker: Laura Cochlin Substituting in Albert Lea Area School.	11:45 AM - 12:45 PM Harbor Side 303	154 General Session See a Thinking Classroom in Action In this session, you will both observe and participate in a thinking classroom. Sarajane and Emilee will take you through two different mini lessons where you participate in one of them as a student and one of them as an observer to experience a Thinking Classroom in action. Speakers: Sarajane Monjeau, Emilee Fremstad South St. Paul Secondary	11:45 AM - 12:45 PM French River 1
149 3-5 Promoting discussion and sensemaking with mathematical representations Technology allows teachers to bring a rich variety of representations into classrooms. But how can digital instructional materials be designed to promote engagement and understanding? This interactive session is geared towards elementary but offers guidelines and routines appropriate across K-12. Speaker: Christy Pettis University of Wisconsin, River Falls	11:45 AM - 12:45 PM Harbor Side 304	155 7-12 M&Ms – Creative (and delicious) Activities for Grades 7-12 Use M&Ms to create physical models and to model exponential decay – both manually and using regression equations. Also create circle and bar graphs by hand and with M&Ms! Calculate: percentages, circumference, angle measures, areas of sectors. Suh–weet! Speaker: Tom Reardon Fitch High School OH	11:45 AM - 12:45 PM Split Rock 1
150 6-8 The Power of Using Models Explore and discover ways to make math more visual for all students. Learn how the use of models and student discourse can be powerful tools in helping students develop a deeper understanding of proportional reasoning and equivalence. Speakers: Stephanie Smith, Jessica Tucker Anoka Hennepin - Coon Rapids MS	11:45 AM - 12:45 PM Harbor Side 305	156 9-12 Financial Literacy, Calculators and Curriculum This session will explore financial literacy, share free curriculum with financial literacy and math connections, and will share some tips on how to do financial literacy on a TI 84 graphing calculator Speaker: Lisa Conzemius Clinton Graceville Beardsley HS	11:45 AM - 12:45 PM Split Rock 2
151 General Session Ethnomathematics in the Math Classroom We will discuss what ethnomathematics is and how it can be incorporated into the mathematics classroom. Examples and activities will be presented. Speaker: Derek Webb Bemidji State University	11:45 AM - 12:45 PM Ballroom L	157 General Session Learning From Interesting Mathematical Mistakes Making mistakes is an important part of learning. In this talk we will explore examples of mathematical mistakes made in history, what we can learn from them, and how they can be used to inspire interest in the subject. Speaker: Sam Judnick	11:45 AM - 12:45 PM Registration Area
152 Rigor and Representation The MN 2022 draft Math Standards highlight a definition for "Mathematical Rigor" that if adopted and implemented in mathematics classrooms has the potential to deepen students' understanding of mathematics (not just in the short term). Leave with practical ideas of how to center students' reasoning and selves in mathematics they are learning. Speaker: Sara Van Der Werf	11:45 AM - 12:45 PM	General Session	Ballroom M/N