2021 MCTM Pre- Recorded Sessions

101 PRE RECORDED

Grade Level(s): 6-8

STEM-ulating Activities for People and the Planet

Connect students' growing math and critical thinking skills to trends shaping the world around them from population growth to carbon emissions to resource management. Discover digital tools to engage students in simulations, modeling, measurement and data analysis using real-world data.

Speaker: Tanzeem Ali
University of Wisconsin - Superior

102 PRE RECORDED

Grade Level(s): PK-2, 3-5

Using Real-World Data for Elementary Problem Solving

Show elementary students real-world applications for their emerging math skills with activities that use data sets on wildlife habitat, land and water use. Discover digital tools for working with fractions, ratios, large numbers, growth patterns, measurement, and data analysis.

Speaker: Tanzeem Ali
University of Wisconsin - Superior

103 PRE RECORDED

Grade Level(s): PK-2, 3-5

Building Bridges - An Adoption Story

We will share the journey of our district math adoption - from the groundwork laid in preparation to the implementation of the selected curriculum. We will also share resources that guided our work.

Speakers: Lynn Billett, Melissa Beyer, Margaret Williams
Anoka-Hennepin ISD 11

104 PRE RECORDED

Grade Level(s): General Session

Intro to Creating Activities in Desmos

What makes a great math activity on technology? How can you create custom activities? Come explore the answers to these questions as we dive into Desmos Activity Builder! This session is for teachers who are new to creating their own Desmos Activities. Computational Layer and self-checking activities will not be addressed.

Speaker: Jessica Breur
Mounds View Public Schools/Desmos Certified Presenter

105 PRE RECORDED

Grade Level(s): 3-5, Teacher Coaching K-5

Multiplication: How is it unique from Addition

Multiplication as an operation is distinct from addition. This session separates the issue of the formats by which we represent the operation to thinking deeply about the mathematical concepts and properties of operations students need to develop.

Speaker: James Brickwedde
Project for Elementary Mathematics

106 PRE RECORDED

Grade Level(s): PK-2, 3-5, 6-8

Place Value through the lens of Multiplication

Place value, at its core, is a rate of ten. This session looks at guiding students to develop this multiplicative understanding starting in the primary grades. Work in grades 3-5 in multiplication and division will be a central focus.

Speaker: James Brickwedde
Project for Elementary Mathematics

Grade Level Color Bands

Adult Learners	College	Elementary (Pk-2; 3-5)	Secondary (6-8; 9-12)

General Session

2021 MCTM Pre- Recorded Sessions

107 PRE RECORDED

Grade Level(s): 6-8

Developing Conceptual Understanding and Procedural Fluency in Middle Grades Mathematics

Too often students can "do" in the moment but later cannot recall the process. Developing robust concept images and analyzing ways of thinking about mathematics can facilitate flexible procedural knowledge and understanding of ideas such as ratio or linear equations.

Speaker: Gail Burrill

michigan

108 PRE RECORDED

Grade Level(s): 3-5

Routines That Support Voice and Empowerment for All

We will look at beliefs and specific routines that develop an intermediate math classroom where all students have access, status and voice. Resources will be shared.

Speakers: Elisabeth Carlson, Margaret Williams

Anoka Hennepin Isd 11

109 PRE RECORDED

Grade Level(s): 9-12, College

Favorite Resources for Teaching AP Statistics

AP Statistics has numerous resources that teachers have shared with me or I have discovered in the last few years that help to make teaching statistics more engaging for students. Several ideas will be demonstrated and shared in this session.

Speaker: Lisa Conzemius

Detroit Lakes Public Schools

110 PRE RECORDED

Grade Level(s): PK-2, 3-5, Teacher Coaching K-5

Story Cards: Finding Personal Connections

Story cards are 5 by 8 inch cards created with themes that include manipulatives. In this session, we will share our experience of using the cards, created by the parents/families, to help bring personal interests/cultures to the math we were teaching.

Speakers: Eileen Cook, Jessica Strom

Win-E-Mac

111 PRE RECORDED

Grade Level(s): PK-2, Teacher Coaching K-5

How to Teach Math without Counting to 100

Counting is unnecessary for learning math and burdensome, especially for ESL and minorities. Japanese children do not count in math class; they use visualizing through subitizing and grouping in fives. Learn how this alternative approach makes learning math a joy.

Speaker: Joan Cotter

NA

112 PRE RECORDED

Grade Level(s): PK-2, 3-5

Connecting the Dots - Elementary Domino Math Games

Come prepared to play and learn easy to implement domino math games that teach the following concepts: early operations and multi-digit practice, 2 - 4 digit place value and decimals, multi-operations, mulitplication, advanced place value, fractions, multiplication, graphing, and more. Dominoes are easy to integrate into your classroom in centers, socially distanced play, or in home settings. Participants will receive gameboards and ideas for differentiating the activities. PARTICIPANTS NEED TO BRING A SET OF 28 DOUBLE-SIX DOMINOES.

Speaker: Jane Felling

Box Cars and One-Eyed Jacks

Grade Level Color Bands

Adult Learners	College	Elementary (Pk-2; 3-5)	Secondary (6-8; 9-12)

General Session

2021 MCTM Pre- Recorded Sessions

113 PRE RECORDED

Grade Level(s): PK-2, 3-5

Shuffling into Math - Primary Math Games

Come prepared to play easy to implement math games that use a regular deck of cards - easy to implement into your classroom, or at home if you are still teaching in a virtual setting. Games will focus on the following concepts: Place value to 100 and to 1000, addition & subtraction early fluency games, double digit addition/subtraction, multi-operations, mulitplication, and problem solving. Participants will receive gameboards, concept skill checklists and ideas for differentiation throughout the workshop. PARTICIPANTS NEED TO BRING A DECK OF CARDS....ALL HANDS ON DECK FOR AN ENGAGING HOUR OF PRACTICAL ACTIVITIES.

Speaker: Jane Felling

Box Cars and One-Eyed Jacks

114 PRE RECORDED

Grade Level(s): 3-5, 6-8

Math Fun"die"Mentals - Place Value Games

Come prepared to play math games that incorporate the use of dice that teach the following place value concepts: whole numbers to millions, rounding and expanded notation, decimals to thousandths, fraction equivalency. Ideas to differentiate the activities for remediation and assessment will be shared throughout. Handout with gameboards, student work samples will be shared. Come prepared to play, learn and engage in activities that will meet the needs of your students - whether they are being taught in virtual or in person settings.

Speaker: John Felling

Box Cars and One-Eyed Jacks

115 PRE RECORDED

Grade Level(s): General Session

Little Things Can Make a Difference

There's not always time for additional activities, but little things can make a difference, whether it's timing, questioning, learning cycles, metacognition, etc. Connecting neuroscience and education, we will discuss some practices that can make a positive difference and why.

Speaker: Tammy Fitting

Minnesota State University Moorhead

116 PRE RECORDED

Grade Level(s): 9-12, College

Solving part of an unsolved problem

The Graceful Tree conjecture was posed in 1967 and is an excellent problem to engage middle and high school students in generalizing algebra. In a graduate mathematics course at Bemidji State several graduate students made progress on the class of graceful trees known as lobster graphs. We will share our progress in this presentation.

Speakers: Todd Frauenholtz, Wei Chen, James Bettin, Charles Huju, Dale Marleau

Bemidji State University

117 PRE RECORDED

Grade Level(s): PK-2, 3-5, Teacher Coaching K-5

Desmos for 1st-5th grade students

Reaching students where they are at during distance learning through Desmos. A collection of activities will be shared along with how these lessons can be customized based on students' AVMR levels or constructs.

Speaker: Tim Harms

Minnesota State University Moorhead

118 PRE RECORDED

Grade Level(s): General Session

The Benefits of Teaching in Small Rural District

There are many amazing aspects to teaching in a rural district. Whether you are starting your career, looking for a change, or just curious, these are my reasons why you should consider applying to a small school.

Speaker: Kristen Helland

ISD 91 Barnum Public Schools

Grade Level Color Bands

Adult Learners	College	Elementary (Pk-2; 3-5)	Secondary (6-8; 9-12)
	General Session		

2021 MCTM Pre- Recorded Sessions

119 PRE RECORDED

Grade Level(s): General Session

Data Literacy (MCA focus)

Ever wonder about “data driven decisions” for the classroom? In this session we’ll discuss the collection, management, and interpretation of student data (including, but not limited to, MCA data) and it’s appropriate uses.

Speakers: Michael Huberty, Angela Hochstetter

Minnesota Department of Education

120 PRE RECORDED

Grade Level(s): General Session

Minnesota Standards Review Process

The Minnesota standards for mathematics will be reviewed during the 2021-22 school year. Learn about the review process and how you can be involved!

Speakers: Susan Ingvalson, Doug Paulson

Minnesota Department of Education

121 PRE RECORDED

Grade Level(s): 3-5

Enhancing Student Voice: Choral Counting Gr. 3-5

Student engagement matters. Choral Counting promotes an equitable classroom where student voice is prominent and encouraged in learning. In the upper grades, Choral Counting lends itself well to exploring a variety of mathematical ideas.

Speaker: Sarah Johnston

Roseville Area Schools ISD 623

122 PRE RECORDED

Grade Level(s): Teacher Coaching K-5, 6-8, 9-12

Reasoning and Problem Solving Through Coaching

Experience will be shared from a series of math coaching opportunities in rural schools. Attention to reasoning and flexible problem solving techniques are promoted through the use of effective mathematics teaching practices.

Speakers: Mike Jordahl, Lisa Pingrey, Amy Tervola Hultberg

Sourcewell Education Solutions

123 PRE RECORDED

Grade Level(s): PK-2, 3-5, 6-8

Using Classwide Intervention to Raise Math Achievement

Choral Counting promotes an equitable classroom where student voice is prominent and encouraged in learning. In the upper grades, Choral Counting lends itself well to exploring a variety of mathematical ideas.

Speaker: Lynn Lamers

Sourcewell Technology

124 PRE RECORDED

Grade Level(s): PK-2, 3-5, 6-8

Examining Common Math Myths

Examine and debunk the common math myths in today's classrooms. We will look at current research to untangle three common myths about math instruction, and discuss changes you can make in your classroom to boost student achievement.

Speaker: Lynn Lamers

Sourcwell Technology

Grade Level Color Bands

Adult Learners	College	Elementary (Pk-2; 3-5)	Secondary (6-8; 9-12)

General Session

2021 MCTM Pre- Recorded Sessions

125 PRE RECORDED

Grade Level(s): General Session

Fractions: Misunderstood by Most

Fractions are often misunderstood and feared by children. Let's find a better and clearer way of teaching fractions. Fractions are, dare I say, fun when they are taught the right way. Come and uncover the beauty and simplicity of fractions.

Speaker: Kathleen Cotter Lawler

n/a

126 PRE RECORDED

Grade Level(s): PK-2, 3-5, Teacher Coaching K-5

Teaching Math with Card Games? Yes, You Can!

Are your students tired of flashcards? Are you frustrated because they don't remember the multiples of 7? Use games to teach and review math facts. Learn effective math games that will have your students asking to practice their math facts!

Speaker: Kathleen Cotter Lawler

n/a

127 PRE RECORDED

Grade Level(s): General Session

#MathWithMeMN - 1 Year of Creating Equity with Math

Last year SPPS launched the community engagement initiative 'MathWithMeMN'. Students and teachers, collectively, created math installations and experiences in their homes and communities designed to connect people to each other and to mathematics. A year later, we look to relaunch.

Speaker: Collin Malaney

St Paul Public Schools

128 PRE RECORDED

Grade Level(s): 9-12, Teacher Coaching 9-12

Creating Mathematics Curriculum with Equity and Social Justice

A conversation about the process of creating curriculum for high school mathematics courses using a culturally relevant framework and social justice standards. Examples will be provided from the SPPS CRI Geometry curriculum, written by SPPS teachers for SPPS students.

Speakers: Kimberley Nichols, Peggy Nayar

St. Paul Public Schools

129 PRE RECORDED

Grade Level(s): General Session

Using Released MCA Questions to Identify Student Misconceptions

Participants will: 1.) Access released test questions and examine how the MCA questions reflect the rigor and complexity of the Minnesota K–12 Academic Standards, 2.) Use the data that comes with released test content to identify student misconceptions, and 3.) Learn about a new tool coming soon where teachers will be able to search for released questions by benchmark.

Speaker: Kendra Olsen

MDE

130 PRE RECORDED

Grade Level(s): General Session

New Resources Available for Educators on Testing 1, 2, 3

New resources have been added to MDE's assessment and data site for teachers: Testing 1, 2, 3. Participants will learn about the newest resources added, including where to access the new Benchmark ALDs and a new training module about writing multiple choice test questions. Come sharpen your assessment and data skills!

Speaker: Kendra Olsen

MDE

Grade Level Color Bands

Adult Learners	College	Elementary (Pk-2; 3-5)	Secondary (6-8; 9-12)

General Session

2021 MCTM Pre- Recorded Sessions

131 PRE RECORDED

Grade Level(s): PK-2

CGI: Algebraic Thinking in the Primary Classroom

We will dig into a 2nd grade math classroom to explore the range of student understandings of algebraic concepts. The presenters will then share instructional strategies and tasks that will advance thinking organically.

Speakers: Emily Payan, Margaret Williams

Anoka-Hennepin ISD 11

132 PRE RECORDED

Grade Level(s): PK-2, 3-5, 6-8

The Arc from Arithmetic to Algebra

The foundations of number sense and algebraic thinking developed in K–2 are essential for upper elementary, middle school, and high school mathematics, yet they are often misunderstood. We will explore the progression of learning spanning from kindergarten to high school to experience how math skills developed in the early years prepare students for Algebra 1. No matter what grade you teach, you will find something to use with your students to propel them forward, as well as how to incorporate digital manipulatives for e-learning.

Speaker: Elizabeth Peyser

Curriculum Associates

133 PRE RECORDED

Grade Level(s): 6-8, 9-12, College, Teacher Coaching 9-12

Leverage Classroom Instruction and Technology for ACT Success

Focus on conceptual understanding of “big ideas”: linear equations, slope, percents, quadratics, multiple representations, area and perimeter, thinking graphically, solve systems using creative technology integration. Obtain activities and strategies that augment what you do. Address how differently ACT asks questions.

Speaker: Tom Reardon

Austintown Local School DIstrict (Ohio)

134 PRE RECORDED

Grade Level(s): 9-12, Teacher Coaching 9-12

Curriculum Workshop: Exeter Math in Distance/Hybrid Learning

The well-curated problem-based high school math curriculum from Phillips Exeter Academy is available free online, but with minimal support materials. I'll share best practices for using Exeter Math in online/distance learning, and share materials I've created.

Speaker: Mike Reiners

Christ's Household of Faith School

135 PRE RECORDED

Grade Level(s): 3-5, 6-8, 9-12

Desmos - The Computation Layer for Immediate Feedback

While in distance learning we learned how to use the Computation Layer to give immediate feedback and next steps when a student enters their answer. We hope to give you an overview of what we created and our Desmos Activities that you can make your own. Note- these desmos activities were made for topics around simplifying exponents, the distributive property and equations and could be applied to any problems that involve simplifying and solving equations.

Speakers: Jessica Rice, April Baden, Allie Guidish

Bloomington Public Schools

136 PRE RECORDED

Grade Level(s): PK-2

Early Addition and Subtraction Ideas

Time spent on building mathematical understanding in the early grades will benefit the students in the later years. This session will share ideas and strategies that you can use immediately in your classroom.

Speakers: Jenina Rothstein, Christy Eckenrode

Buffalo-Hanover-Montrose ISD #877

Grade Level Color Bands

Adult Learners	College	Elementary (Pk-2; 3-5)	Secondary (6-8; 9-12)

General Session

2021 MCTM Pre- Recorded Sessions

137 PRE RECORDED

Grade Level(s): 3-5

Teaching Multi-Age Math OUTDOORS in Minnesota

It's time to explore 'Teaching Multi-Age Math OUTDOORS in Minnesota.' You're going to take the info. you learn and head outside with your students. Teaching outdoors guides us in answering the age old question: When will we use math in real life?

Speaker: Stacey Schultz
Multi age 3.4.5 outdoor classroom teacher

138 PRE RECORDED

Grade Level(s): 3-5, 6-8, 9-12

Launching Tasks for Maximum Engagement

Math should be surprising and spark curiosity. Unfortunately, kids perceive school math as dry and boring! We will reconnect with how amazing math can be as we explore *simple* strategies to supercharge the curiosity factor of your lessons.

Speaker: Raj Shah
Independent consultant

139 PRE RECORDED

Grade Level(s): General Session

Cultural Interviews

Cultural interviews are ways to discover the mathematics found in any culture, hobby, or experience. In this session, we will learn about the Bishop 6 (the mathematical characteristics found in all cultures), what a cultural interview entails and how to use them in the classroom.

Speaker: Jessica Strom
Win-E-Mac

140 PRE RECORDED

Grade Level(s): General Session

Thinking Classroom: Student Engagement, Discourse, and Thinking

The Thinking Classroom promotes student engagement, discovery, discussion, and more. Learn how to transform your class into a thinking classroom. Leave with lesson ideas, resources to create your own lessons, and places to learn more about the thinking classroom.

Speaker: Jessica Strom
Win-E-Mac

141 PRE RECORDED

Grade Level(s): College, Adult Learner (ABE)

North Hennepin CC and ABE Partnership

Learn how the math department at North Hennepin Community College has been working with our ABE partner to teach our lowest level, non-financial aid eligible, math course - Math Foundations

Speaker: Sara Van Asten
North Hennepin Community College

142 PRE RECORDED

Grade Level(s): 3-5, 6-8, 9-12

Low-floor, High-ceiling Tasks Every Day

How do you incorporate low-floor, high-ceiling routines in your lessons? Let's talk about how to build lessons and units that include notice/wonder, which one doesn't belong, same but different, and problem strings. They are not just good bell work routines but can be used to create discourse and a growth mindset in your everyday lesson.

Speaker: May Vang
St. Paul Public Schools

Grade Level Color Bands

Adult Learners	College	Elementary (Pk-2; 3-5)	Secondary (6-8; 9-12)

General Session

2021 MCTM Pre- Recorded Sessions

143 PRE RECORDED

Grade Level(s): PK-2

Building Financial Literacy For All

Financial literacy lessons were created for urban, high poverty, high second language learners. This presentation will showcase primary units created to teach currency value, entrepreneurs, and keeping money within a community. Learn about our increased student engagement and academic achievement.

Speakers: Stacy Waskosky, Ishmael Robinson

St. Paul Public School

144 PRE RECORDED

Election Math, Congressional Representation, Gerrymandering, and Voting Methods

Representation, Gerrymandering, redistricting, and vote counting have been big topics of debate in recent election years. This session provides examples on how to address these in your classroom with Desmos activities for your students to explore and come to their own conclusions.

Speaker: Meredith Webster

St. Louis Park

145 PRE RECORDED

Grade Level(s): 3-5

CGI: Algebraic Thinking in the Intermediate Classroom

We will dig into the intermediate math experience to explore the range of student understandings of algebraic concepts. The presenters will then share instructional strategies and tasks that will advance thinking organically.

Speakers: Margaret Williams, Lynn Billett

Anoka-Hennepin ISD 11

146 PRE RECORDED

Grade Level(s): 3-5, 6-8

The Power of Being Curious (part 1)

What's next after selecting student work for discussion? In this session, we share specific teacher moves that grow conversations and the ways teachers can use curiosity as a tool to encourage sense-making. Join us for part 2 on Saturday.

Speakers: Terry Wyberg, Christy Pettis, Janee Rivard-Johnson

University of Minnesota

147 PRE RECORDED

Grade Level(s): College

But Does it Work?: Leveraging Learning Science to Engage and Support Student Success

Join us as we explore what implementing research-based digital tools really looks like and whether they work. The webinar features a professor who is currently using Lumen courseware as she shares what it's really like to use our courseware and whether she has seen success with her students. The Lumen team and guest speaker Sophia Georgiakaki (Professor Mathematics, Chair, Construction and Environmental Technology, Chair, Applied Science and Technology, Tompkins Cortland Community College | Lumen OHM user) as we share and discuss research-based courseware tools and practices, explore whether those tools really work, and share how you can leverage learning science to help all students succeed.

Speakers: Brandon Iafrate, Sophia Georgiakaki

Lumen Learning

148

Grade Level Color Bands

Adult Learners	College	Elementary (Pk-2; 3-5)	Secondary (6-8; 9-12)

General Session