US MATH RECOVERY COUNCIL 2023 NATIONAL CONFERENCE


APRIL 24-26, 2023 • THE DAVENPORT GRAND
333 West Spokane Falls Blvd. • Spokane, Washington \#MRConf23

510 Lone Oak Road, Suite 600
Eagan, Minnesota 55121
p: 952-683-1521
info@mathrecovery.org
mathrecovery.org

## WELCOME to the 2023 US Math Recovery Council ${ }^{\circledR}$ National Conference!



We are so excited you have joined us in Spokane, WA. This beautiful city is a place where curious minds are encouraged to thrive. We are pleased to bring together an exciting collection of Math Recovery authors, community members, staff, and board members to share their knowledge and love of math through our two keynotes, pre-conference sessions, and over 50 breakout sessions. Collectively they bring to life the theme for this year's conference, Igniting a Bright Future. You are joining over 250 math educators from 26 states for three days of learning. The future is bright.

It is our hope that over the next few days you feel connected, supported, and renewed... and that you return to your districts, schools, classrooms, and students feeling inspired and equipped for action. During our pereconference, we are excited to offer participants the opportunity to engage in a learning lab experience and thank the Spokane Public Schools for inviting us into their classrooms. I also want to highlight our two keynote presentations. Drs. Jonathan Thomas and Beth MacDonald are introducing their newly published book, Teaching Mathematics Conceptually: Guiding Instructional Principles for 5-10 Year Olds. This book is part of our Math Recovery series - we now have a Pink book to add to our rainbowed collection of texts. Dr. Anderson Norton expands our thinking around mental actions, opening our imaginations to applications in geometry.

We have a rich array of sessions designed to spark new insights, intensify understanding, kindle inspiration, illuminate next steps for returning to your classrooms and schools, and perhaps for some, reignite the passion that first brought you into education. Our Math Recovery team members are continuously reflecting on their experiences working with educators and students and have thoughtfully selected and prepared sessions with your hopes and needs in mind. In addition, our speakers from the greater Math Recovery community enhance and expand the perspectives and experiences around numeracy education that you get to experience.

On behalf of everyone at US Math Recovery Council ®, have a wonderful time learning, reflecting, and connecting. As always, thank you for being a part of this community.

You make a difference.


Christina Miller, PhD
Executive Director
US Math Recovery Council ${ }^{\ominus}$

The mission of the US Math Recovery Council ${ }^{\oplus}$ is
To transform numeracy education To connect research with practice
To empower educators to advance student mathematical thinking and success ...through Math Recovery ${ }^{\oplus}$ principles.

## FULL CONFERENCE SCHEDULE

PRE-CONFERENCE - MONDAY, APRIL 24

SESSION TIMES
7:00 a.m. - 1:00 p.m.
7:30 a.m. - 8:30 a.m.
8:30 a.m. - 11:30 a.m. 11:30 a.m. - 12:40 p.m. 12:40 p.m. - 3:40 p.m.

SESSION DETAILS
Registration/Information Desk
Breakfast - Grand Ballroom A
Morning Sessions
Lunch - Grand Ballroom A
Afternoon Sessions

## DAY 1 - TUESDAY, APRIL 25

## SESSION TIMES

7:00 a.m. - 10:00 a.m.
7:00 a.m. - 8:00 a.m.
8:00 a.m. - 8:05 a.m.
8:05 a.m. - 8:50 a.m.
8:50 a.m. - 10:00 a.m.
10:20 a.m. - 11:30 a.m.
11:30 a.m. - 12:30 p.m.
12:30 p.m. - 1:40 p.m.
1:40 p.m. - 2:00 p.m.
2:00 p.m. - 3:10 p.m.
3:10 p.m. - 3:40 p.m.
3:40 p.m. - 4:45 p.m.

## SESSION DETAILS

Registration/Information Desk
Breakfast - Grand Ballroom A
Welcome - Grand Ballroom A
Board Chair Address, Educator Award Presentation - Grand Ballroom A
Keynote Session - Grand Ballroom A
Breakout Sessions
Lunch - Grand Ballroom A
Breakout Sessions
Break
Breakout Sessions
Break
Welcome Reception \& Instructional Activity Showcase - Grand Ballroom A

DAY 2 - WEDNESDAY, APRIL 26

## SESSION TIMES

6:30 a.m. - 7:30 a.m.
7:00 a.m. - 10:00 a.m.
7:30 a.m. - 8:30 a.m.
8:30 a.m. - 8:50 a.m.
8:50 a.m. - 10:00 a.m.
10:00 a.m. - 10:20 a.m.
10:20 a.m. - 11:30 a.m.
11:30 a.m. - 12:30 p.m.
12:30 p.m. - 1:40 p.m.
1:40 p.m. - 2:00 p.m.
2:00 p.m. - 3:10 p.m.
3:10 p.m. - 3:30 p.m.
3:30 p.m. - 4:40 p.m.
4:40 p.m. - 4:45 p.m.

## SESSION DETAILS

Math Recovery Fun Run / Walk
Registration/Information Desk
Breakfast - Grand Ballroom A
Welcome \& Leadership Celebration - Grand Ballroom A
Annual Membership Meeting - Grand Ballroom A
Break
Breakout Sessions
Lunch - Grand Ballroom A
Breakout Sessions
Break
Breakout Sessions
Break
Keynote Session - Grand Ballroom A
Closing

The Math Recovery ${ }^{\circledR}$ Series provides intensive instruction for early number learning. The inquiry-based approach assesses and builds upon children's knowledge to develop a firm foundation of understanding and confidence in mathematics.


ISBN: 978-1-5297-9183-9


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ISBN: 978-1-5264-9195-4


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ISBN: 978-1-4129-6220-9



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For more information, visit corwin.com/mathrecovery

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## IMPORTANT CONFERENCE FEATURES

## MEALS \& NAME TAGS

Enjoy your delicious breakfast and lunch buffets provided as part of your conference registration. Please note that all food on the buffet will be labeled for ingredients and allergies. If you have dietary restrictions and have questions about any of the buffet food, please speak to a Davenport Grand banquet staff member.

Please have your conference name tag available and visible at all events. This is your meal ticket and supports our speakers during sessions. Turn in your badge holder to any US Math Recovery Council${ }^{\oplus}$ staff member as you leave the conference.

## WELCOME RECEPTION, INSTRUCTIONAL ACTIVITY SHOWCASE, \& MATH RECOVERY AUTHOR BOOK SIGNING

Tuesday evening, April 25th , from 3:40 p.m. to 4:45 p.m. the US Math Recovery Council ${ }^{\oplus}$, together with SAGE Publications, Corwin Press, MathImagine, MathRack, and Mount Holyoke College will host a Welcome Reception in Grand Ballroom A. Mix and mingle with US Math Recovery Council Board of Directors, staff members, Math Recovery authors, speakers, Math Recovery ${ }^{\circledR}$ members and colleagues from around the world. Hors d'oeuvres will be served and a cash bar will be available.

Additionally the Instructional Activity Showcase will run concurrently with the Welcome Reception. Bring your Math Recovery Series books to have them signed by the authors. We hope you will join us in celebrating "Igniting a Bright Future, 2023."

## ANNUAL MEETING OF MEMBERSHIP

US Math Recovery Council ${ }^{\oplus}$ will hold its Annual Meeting of Membership on Wednesday, April 26th, from 8:50 a.m. to 10:00 a.m. Please be sure to attend! The vision and information is always worth it! Everyone is welcome!

## EVALUATIONS \& MISCELLANEOUS REMINDERS

The US Math Recovery Council ${ }^{\circledR}$ Board of Directors and staff hope your conference experience helps to Ignite a Bright Future in 2023 and beyond. Please submit session and conference evaluations found in the conference app. Your input and feedback are extremely important and help us to improve our future conferences and other events.

- Your 2023 USMRC conference certificate will be available to download after May 22, 2023.
- Find and print your certificate located in "My Academy --> My Conferences" on your MR dashboard. The certificate will include the total number of contact hours based on your days in attendance.
- Please join us on Twitter, Facebook, Instagram, and LinkedIn throughout the conference \#MRCONF23. Prizes will randomly be awarded after the conference to people who posted with the hashtag!
- Attend the Fun Run or Walk Event on Wednesday, April 26th from 6:30 a.m. to 7:30 a.m.


## NOTICE OF CONFERENCE PHOTOGRAPHY

As a courtesy, the US Math Recovery Council ${ }^{\ominus}$, Inc. (USMRC) would like to alert all conference attendees, member speakers, presentation speakers, presentation co-speakers, and special guests that the 2023 US Math Recovery Council ${ }^{\oplus}$ National Conference will have photographers taking pictures and video throughout the conference week. It is possible that you may be included in these photos by being present at this conference.

By remaining in the immediate vicinity of The Davenport Grand, Spokane, Washington you are automatically giving US Math Recovery Council ${ }^{\ominus}$ your consent to photograph and video your picture and likeness. You further authorize the following:

- The US Math Recovery Council ${ }^{\circledR}$ and its agents to photograph, and/or otherwise record your image with the understanding that the US Math Recovery Council ${ }^{\ominus}$ will own these photos.
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If for whatever reason you are unable to have your picture or likeness displayed publicly through the mediums listed above, send an email to info@mathrecovery.org with the subject line, "2023 MR Conference Photos." Tell us your first and last name, and list any and all conference sessions you attended in the body of the email. Please attach a recent photo of yourself to the email so that we can identify you in any conference photos to ensure that these particular images are not used.

Thank you!
US Math Recovery Council ${ }^{\circledR}$
April 2023


## CONFERENCE MAP



## CONFERENCE KEYNOTE SPEAKERS



DR. ANDERSON NORTON
Professor of Mathematics Education, Virginia Tech
Keynote: Tuesday, April 25: 8:50 a.m. - Grand Ballroom A
Breakout Session: Tuesday, April 26: 10:20 a.m. - Grand Ballroom A
Anderson Norton is a professor of mathematics education in the Department of Mathematics at Virginia Tech. His research focuses on building psychological models of students' mathematical development. For his efforts to turn research into practice, he was awarded the Early Career Award by the Association of Mathematics Teacher Educators, in 2013. More recently, Dr. Norton has focused on fostering collaborations with psychologists and neuroscientists so that cognitive constructs, such as working memory, might inform mathematics education, and so that research in mathematics education might inform psychological studies of mathematical development. With psychologist Martha Alibali at the University of Wisconsin, he co-edited the Springer book, Constructing Number: Merging Perspectives from Psychology and Mathematics Education. He has also co-authored two books for the Math Recovery book series published by SAGE Publications, Corwin Press: Developing Fractions Knowledge and Numeracy for All Learners. Earlier this year, Routledge published his book, The Psychology of Mathematics: A Journey of Personal Mathematical Empowerment for Educators and Curious Minds.


## DR. BETH MACDONALD <br> Associate Professor of Early Childhood Mathematics Education, Illinois State University

Keynote: Wednesday, April 26: 3:30 p.m. - Grand Ballroom A
Breakout Session \#1: Tuesday, April 25: 12:30 p.m. - Grand Ballroom A
Breakout Session \#2: Wednesday, April 26: 10:20 a.m. - Grand Ballroom A
Dr. MacDonald is an associate professor of early childhood mathematics education in the School of Teaching and Learning at Illinois State University. After completing a Bachelor of Arts degree in Studio Art and Elementary Education (PreK-6) at SUNY Potsdam, Dr. MacDonald taught elementary school for 15 years and served as a K-5 Instructional Specialist for two years in southwest Virginia. In this time, Dr. MacDonald taught in fully inclusive elementary classrooms within Title 1 schools and within all K-5 grade levels. While teaching, Dr. MacDonald completed her Master of Arts in Education degree, with a focus on K-8 Mathematics Education and her Doctor of Philosophy degree, with a Curriculum and Instruction concentration and focus on Mathematics Education, both from Virginia Tech. Her research broadly focuses on PreK-5 students' development of number, particularly with subitizing activity at the center of this development. Moreover, Dr. MacDonald collaborates often with colleagues who examine teachers' specialized content knowledge development in mathematics/STEM and collaborates with colleagues who examine marginalized students' number understanding development. Dr. MacDonald also served as a lead guest editor for a special issue of the Education Sciences journal, focusing on STEM in Early Childhood Education.

## CONFERENCE KEYNOTE SPEAKERS



## DR. JONATHAN THOMAS

Chair of the Department of STEM Education, University of Kentucky
Keynote: Wednesday, April 26: 3:30 p.m. - Grand Ballroom A
Breakout Session \#1: Tuesday, April 25: 12:30 p.m. - Grand Ballroom A
Breakout Session \#2: Wednesday, April 26: 10:20 a.m. - Grand Ballroom A
Dr. Thomas is an associate professor of mathematics education and the chair of the department of STEM Education at the University of Kentucky. Additionally, Dr. Thomas is a former USMRC board member and chairperson. He is committed to a vision of STEM Education that is inclusive, engaging, and fosters a sense of relentless curiosity amongst students and teachers. Dr. Thomas also serves as a faculty associate for the Kentucky Center for Mathematics (www.kymath.org) and facilitates professional learning experiences for teachers across the commonwealth. Dr. Thomas worked as a mathematics intervention teacher in public, private, and charter schools in the greater Cincinnati metropolitan area and his research interests include investigating responsive mathematics teaching practices, equity concerns in the elementary mathematics classroom, non-verbal patterns of mathematical interaction, and cognitive progressions of children's mathematical construction.


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## CONFERENCE FEATURED SPEAKERS



DR. JESSICA HUNT
Associate Professor, Mathematics Education and Special Education, Teacher Education and Learning Sciences, North Carolina State University
Breakout Session \#1: Tuesday, April 25: 10:20 a.m. - Meeting Room 1
Breakout Session \#2: Tuesday, April 25: 2:00 p.m. - Terrace Room West
Dr. Jessica Hunt began her career in education as a middle school mathematics teacher at a technology demonstration school in Florida. From that work, she grew to love teaching students with learning disabilities (LD). Dr. Hunt argues that mathematics instruction should work to (a) uncover students' strengths, (b) give them access to their mathematical reasoning, and (c) support the advance of that reasoning. Her research supports a re-conceptualization of research and instructional practice using practices from both mathematics education and special education to support students with LD to be thinkers and doers of mathematics. Specifically, she designs and tests asset-based learning environments, including gameenhanced curriculums, to understand, support, and extend student learning, agency, and identity.


## DAWN DIBLEY

Course and Implementation Specialist, US Math Recovery Council ${ }^{\circledR}$
Breakout Session \#1: Tuesday, April 25: 12:30 p.m. - Meeting Room 1
Breakout Session \#2: Wednesday, April 26: 10:20 a.m. - Meeting Room 1
Dawn Dibley, a special educator with thirty years of experience as a music therapist, classroom teacher and mathematics coach is an instructional coach for the US Math Recovery Council ${ }^{\oplus}$. She holds a Bachelor's degree in Music Therapy and Master's degrees in Music Therapy and Developmental Cognitive Disabilities from the University of Minnesota. She is interested in the use of Math Recovery ${ }^{\otimes}$ assessments and teaching practices in the instruction of students with disabilities. She is a co-author of the book Numeracy for All Learners: Teaching Mathematics to Students with Special Needs.

## CONFERENCE FEATURED SPEAKERS



## CHRISTINA MILLER, PHD

## Executive Director

General Session \#1: Tuesday, April 25: 8:00 a.m. - Grand Ballroom A
General Session \#2: Wednesday, April 26: 10:20 a.m. - Grand Ballroom A
General Session \#3: Wednesday, April 26: 4:40 p.m. - Grand Ballroom A
Dr. Christina Miller, Executive Director of the US Math Recovery Council ${ }^{\circledR}$ (USMRC), has been an active member of the Math Recovery ${ }^{\ominus}$ community for over 15 years serving in various roles including Math Recovery trainer, board member, Program Development Director, and serves currently as Executive Director. Before joining the US Math Recovery Council team full-time, Christina worked over 19 years in K-12 public education in capacities including classroom teacher, math interventionist, and instructional coach. She worked with students, teachers, and administrations to improve the quality of math instruction including supporting large-scale initiatives and implementations of Math Recovery. Christina has supported both undergraduate and graduate-level coursework in higher education. Her current work involves leading the organization in fulfilling the mission of the US Math Recovery Council to transform numeracy education through Math Recovery principles. Christina holds a B.A. in Elementary Education, M.A. in Educational Leadership, and a PhD in Curriculum and Instruction with an emphasis in mathematics and elementary education.


## LESLEY MAXFIELD

Board of Directors Chair
General Session \#1: Tuesday, April 25: 8:00 a.m. - Grand Ballroom A
Breakout Session \#1: Monday, April 24: 8:30 a.m. - Meeting Room 1
Breakout Session \#2: Wednesday, April 26: 10:20 a.m. - Meeting Room 2
Breakout Session \#3: Wednesday, April 26: 2:00 p.m. - Meeting Room 3
Lesley Maxfield serves Spokane Public Schools as a District Elementary Math Coach. In addition to implementing Math Recovery ${ }^{\oplus}$ training, she provides collaborative mentoring and professional development support for elementary math coaches and interventionists. This year, she is offering PD for the district MRIS and Champion certified staff. Lesley also does intervention work supporting students at Title 1 schools.

MONDAY, APRIL 24, 2023 - PRE-CONFERENCE<br>Monday, April 24 at a Glance<br>SESSION TIMES<br>7:00 a.m. - 1:00 p.m.<br>7:30 a.m. - 8:30 a.m.<br>8:30 a.m. - 11:30 a.m.<br>11:30 a.m. - 12:40 p.m.<br>12:40 p.m. - 3:40 p.m.<br>\title{ SESSION DETAILS }<br>Registration/Information Desk<br>Breakfast - Grand Ballroom A<br>Morning Sessions<br>Lunch - Grand Ballroom A<br>Afternoon Sessions

## MORNING SESSIONS (8:30 a.m. - 11:30 a.m.)

## Ignite Cognitive Shifts in Addition \& Subtraction

## Presenters: Susan Whited \& Patti Muck

Location: Meeting Room 12
Congratulations! Your students accurately count visible items. Now what? Why is the figurative stage important? What experiences engender the development of a child's ability to keep track or count on when counting concealed objects, especially beyond finger range? How do we get students to use non-count-by-one strategies? If you need answers to these questions, this session is for you! The goal of this session is to deepen and expand knowledge of important instructional progressions in early arithmetical learning, providing students with the facility to develop more sophisticated strategies for addition and subtraction.
Prerequisite: MRIS or MRSp1

## AVMR Classroom Learning Lab

Presenters: Kristin Frang, Kim Hagman, Lesley Maxfield,
\& Tonda Thompson
Location: Meeting Room 1 \& Tonda Thompson
Come join us for a Classroom Learning Lab experience, an authentic opportunity, focused on implementing Add+VantageMR ${ }^{\circledR}$ in assessment and instructional strategies in practice. During this session, participants will travel by bus to a local school district to participate in a classroom visit. The classroom visit will be framed by a pre-observation meeting to set a learning focus and a debriefing session. During the debriefing, participants will have the opportunity to reflect on the practices in action and determine next steps in your own context.

This session is off-site, transportation is included. Limited to 30 participants.

## MONDAY, APRIL 24, 2023 - PRE-CONFERENCE

## They're Trained, Now What? - A Unique Approach to Designing Ongoing Learning

## Presenters: Kate Anderson \& Melissa Wilke

Explore ways to engage stakeholders in implementing and extending the learning from Math Recovery courses. The goal of this session is to connect adult learning theory and principles to the design of various modes of professional development. We will consider ways to assess current and future needs to develop effective ways to meet those needs through timely and purposeful professional development. Through this experience, participants will establish a rejuvenated approach toward professional development planning within their sphere of influence. This session will be most applicable to Champions, Leaders and district leaders that are responsible for planning and coordinating professional development.

## Beyond the Course - Small Group Instruction

Presenters: Katie Leadbetter, Ashlyn Burr, Tamara Kerns \& Carrie Rzasa Location: Meeting Room 3
Do you want to know more about small group lesson design, instruction, and differentiating activities? Through the use of videos, hands-on experience through role play, and direct feedback, you will have a better understanding of how to empower your learners in any capacity within small group instruction.

Streamlining Data Collection and Analysis for AVMR Fractions<br>Presenters: Megan Coonan \& Christy Lyle<br>Location: Meeting Room 10<br>Consider methods to streamline the data collection for Fractions Constructs and Stages of Units Coordination. Practice analyzing sample data sets and then apply a shared protocol to data from your students or district. Participants who choose to attend Fractions Data into Practice - Pedagogical Engineering Actual Lessons in the afternoon will have the opportunity to use their data in that process!

Prerequisite: AVMR Fractions

## AFTERNOON SESSIONS (12:40 p.m. - 3:40 p.m.)

## Cultivating a New Landscape - Building the Culture for Systemic Change

An effective implementation plan supports learning environments, equitable practices, and constructivist approaches to help students achieve higher levels in mathematics. Through this process, districts need to develop ways to establish strong partnerships and a system to support change. In this session, we will consider next steps towards cultivating that new landscape.

MONDAY, APRIL 24, 2023 - PRE-CONFERENCE

## Learning to Facilitate a Classroom Learning Lab

## Presenters: Kristin Frang \& Katie Leadbetter

Location: Meeting Room 1

A Classroom Learning Lab experience is an authentic way for educators to deepen understanding, improve practice, and increase accuracy through collaboration. This session will focus on how to set up and facilitate a Classroom Learning Lab. Participants will learn the essential components and begin to plan for their own local Classroom Learning Lab experiences including messaging the "why" to administration.

## Peeling Back the Layers of Teaching Charts 3B10 and 3B20

Presenters: Dee Swanson, Sherry Lee Hornbacher, Lori Loehr Location: Meeting Room 3 \& Thuc-Khanh Park

Engage in unpacking the teaching procedures implicit within Teaching Charts 3B10 and 3B20. Examine how the Dimensions of Mathematizing play out in instruction using ten-frames and bead racks. Collaborate with participants and facilitators to develop a richer understanding of the complex domain of structuring numbers.

Prerequisite: MRSp1 or MRISw

## A Framework for Lesson Planning - Considering Every Learner's Needs

## Presenters: Crystal Bissing, Andrew Potter \& Rachel Rogers <br> Location: Meeting Room 4

Support the needs of learners with an Understand, Diagnose, Take Action framework. Using sample multiplication and division lessons, participants will connect standards to the LFIN, check for understanding, and plan scaffolds and extensions. This framework supports equitable access to grade level content. Sample lessons will be available for 3rd and 5th grade content. Participants are welcomed and encouraged to bring their own multiplication and division lesson.

Fractions Data Into Practice - Pedagogical Engineering Actual Lessons<br>Presenters: Megan Coonan \& Christy Lyle Location: Meeting Room 10<br>Using student data, pedagogically engineer a lesson designed to provide access to grade level content for all students, based on their current Fractions Construct. Sample lessons will be available for 5th, 8th, and 10th grade content. Participants are encouraged to bring their own upcoming lesson and relevant student data - you will leave with a differentiated lesson, ready to use on Monday morning!

Prerequisite: AVMR Fractions

## Condratulations TO THE 2022 WINNER OF THE EDUCATOR AWARD

The US Math Recovery ${ }^{\oplus}$ Educator Award honors individuals who have demonstrated highly effective engagement with students and other educators in the mathematics teaching and learning. These honorees have dedicated service to their school, community and/or the US Math Recovery Council ${ }^{\oplus}$, and have a significant commitment to their own professional growth.
 USMRC is proud to announce the winner of the 2022 US Math Recovery ${ }^{\circledR}$ Educator Award. This individual was nominated by their peers for this prestigious award and has demonstrated the qualities, passion and commitment necessary to ensure Math Recovery positively impacts their schools and communities.


## Shelley Dickson

Shelley Dickson of Fayette County Public Schools, Lexington, Kentucky, is the 2022 US Math Recovery ${ }^{\oplus}$ Educator Award recipient.

Shelley's passion for effective math instruction and student numeracy learning has led her to learn all she can about math instruction and to share that learning with others. She has significantly impacted mathematics teaching and learning in Fayette County, Kentucky, and beyond and is highly valued for the training and support she provides. She is a dedicated Math Recovery ${ }^{\ominus}$ interventionist and routinely supports classrooms.

Shelley leads a very busy life at home and at work. She has been married for 30 years to her best friend, Bob. Together, they have 2 adult children, 2 adult-in-law children, and 3 beautiful grandchildren. Shelley and her husband currently live in Richmond, Kentucky.

Throughout her 31 years in education, Shelley has been a classroom teacher, assistant principal, Reading Recovery teacher and coach, ELL teacher, math interventionist, district Math Specialist, elementary math specialist, Math Recovery Leader, and AVMR Champion for AVMR $1 \& 2$, and Fractions. Shelley has also developed and managed her own successful educational supply company, Counting Spots.

Shelley says, "I love working with leaders, teachers, and students and helping them discover their inner 'mather'. We can only get there through inquiry and discovery, not rules and procedures. It is a huge mindset shift, and seeing the looks on those faces when everything clicks for the first time is amazing! Whether it's 1 st grade, 5th grade, or adults... THAT'S why I love my job!! If you don't love math, then it hasn't clicked for you because everyone is a math person, just like everyone is a reader, everyone is a mather!! That's why I developed Counting Spots. To help teachers and parents bring fun mathematizing to their kids and help them become Mathers for life."

Congratulations Shelley! We are proud to honor your achievements!
Nominate an exceptional mathematics educator today! Nominations are open for the 2023 US Math Recovery Council ${ }^{\oplus}$ Annual Meeting at www.mathrecovery.org/educator-award

## TUESDAY, APRIL 25, 2023 - DAY 1 SCHEDULE

Tuesday, April 2
SESSION TIMES
7:00 a.m. - 10:00 a.m.
7:00 a.m. - 8:00 a.m.
8:00 a.m. - 8:05 a.m.
8:05 a.m. - 8:50 a.m.
8:50 a.m. - 10:00 a.m.
10:20 a.m. - 11:30 a.m.
11:30 a.m. - 12:30 p.m.
12:30 p.m. - 1:40 p.m.
1:40 p.m. - 2:00 p.m.
2:00 p.m. - 3:10 p.m.
3:10 p.m. - 3:40 p.m.
3:40 p.m. - 4:45 p.m.

## TRACKS KEY:

AVMR 1 \& AVMR 2 Teacher
AVMR Fractions
AVMR Teacher (Course 1)

- AVMR Teacher (Course 2)
- General

Leader/Champion
$\diamond$ Student Support: Intervention

- Student Support: Special Education
School-Based Support
System Support
Interest areas indicated by the presenter.

OPENING SESSION (8:00 a.m. - 8:50 a.m.)

## Welcome

Presenter: Christina Miller, PhD, Executive Director
Location: Grand Ballroom A

## Board Chair Address and Educator Award Presenation

Presenter: Lesley Maxfield

Location: Grand Ballroom A

TUESDAY, APRIL 25, 2023 - DAY 1

## KEYNOTE SESSION (8:50 a.m. - 10:00 a.m.)

## Minding Your Own Mathematics

## Keynote: Dr. Anderson Norton

Location: Grand Ballroom A

Dr. Norton frames mathematics as a product of psychology, and more specifically, as a coordination of mental actions. Following a Piagetian perspective, mathematical operations are characterized as mental actions that are reversible and composable, thus rendering them both reliable and fruitful. Long chains of such mental actions can be carried out with perfect reliability and form all kinds of mathematical objects through the coordination of operations, within group-like structures. To illustrate, we start with the simple example of reflections about a line in the plane: a reversible mental action with primitive roots. By composing such reflections with one another, we can generate rotations, translations, and glide reflections. In turn, those transformations define the objects of Euclidean geometry and their properties. For example, we can rely on mental rotations to intuitively prove that the sum of the interior angles in any triangle is $\pi$.

## MORNING BREAKOUT SESSIONS (10:20 a.m. - 11:30 a.m.)

## Featured Speaker Session

Five Recommendations to Empower Students with Disabilities as Doers and Thinkers of Mathematics

## Presenter: Dr. Jessica Hunt

Location: Meeting Room 1
Calls for equitable mathematics learning opportunities for students with disabilities have routinely been made over the past 30 years. Framing mathematics intervention from a position of "What do students know and how can I use it?" creates and sustains views of students as mathematically enabled, removing the "problem" from the student and placing it, as a challenge, on the instructional design and interactions between teachers and students.

In this talk, Dr. Hunt shares her own research and experiences empowering students with disabilities in mathematics. Through five actionable recommendations, Dr. Hunt aims to inspire teachers and educational leaders to structure interventions as asset-oriented spaces that work to restore students' agency, belonging, and opportunities to make sense of their own reasoning.

## TUESDAY, APRIL 25, 2023 - DAY 1

## Featured Speaker Session <br> Modeling Students' Mathematics with Unit Transformation Graphs

Presenter: Dr. Anderson Norton

Location: Grand Ballroom A

A student's ability to construct and transform units undergirds large swaths of their mathematics, especially as it relates to whole number operations, fractions, and early algebraic reasoning. In this session, I introduce an approach to modeling students' mathematics and provide examples from a study of students enrolled in a mathematics for elementary school teachers' course. Unit transformation graphs (UTGs) are vertex-edge graphs, with vertices representing constructed units and directed edges representing unit transformations, such as iterations or partitions of a unit. These graphs illustrate students' mathematics by specifying the mental actions they use to construct and transform units when solving tasks, such as fraction composition tasks. They also demonstrate the power of constructing two- and three-level, at higher stages of units coordination. The session will conclude with suggestions for using UTGs for your own teaching and research.

## The Universal Screeners for Number Sense - An Open-Source Assessment Project

## Presenter: David Woodward

 Location: Meeting Room 12The Universal Screeners for Number Sense (USNS) are a series of K-6 assessments freely available to everyone. In contrast to other popular screening assessment systems, the USNS utilizes interview and paper \& pencil tasks to focus on number sense development. This unique design enables teachers to identify student assets and reasoning, in addition to pointing teachers toward areas for targeted instruction and/or further assessment. Come learn about the USNS, the history, philosophy, and connection to Math Recovery and AVMR. We'll watch some videos to learn how the assessments are administered and scored, learn about their validity and reliability, and discuss how the results can quickly be turned into action.

## Foundational Understanding in Numeracy - FUN Math Model

## Presenters: Michelle Tudor, Becky Erwin, and Shelley Dickson

Location: Meeting Room 5
Build primary students' number sense and foundational math skills while creating a love of math! This session will provide a framework for small group instruction in the classroom that will build students' skills in number/numeral identification, addition and subtraction and structuring. Learn how to use instructional time and staff in early primary with the intention of preventing the need for intervention in later years. You will learn how to place students in groups, what instructional resources to use and how to monitor progress. There will be time for a question and answer session.

TUESDAY, APRIL 25, 2023 - DAY 1

## Fractions and Lesson Planning - Incorporate and Build Conceptual Understanding of Operations within Lessons

Presenter: Christy Lyle

Location: Meeting Room 3

Wondering how to teach grade level content AND deepen student conceptual understanding of fractional operations? We'll explore a task from each operation and look at how to provide similar experience to fill in unfinished learning for students while still 'getting to' the content of a lesson not explicitly focused on fractions content. Plan to think deeply about differentiating lessons such that each student is working on different content vs providing scaffolds to support each student in accessing grade level content.

## Guiding the Design of Strong Instructional Scaffolds for Unfinished Learning: Acceleration vs. Remediation

## Presenters: Dina Mendola, Michelle Tatrow and Crystal Bissing <br> Location: Meeting Room 10

Together we will: Explore how learning acceleration supports students with diverse learning needs and addresses the needs of historically marginalized students, Analyze an approach for guiding teachers in the process of intentionally planning for just-in-time scaffolds according to content area, context, and student needs using UDL, Anticipate potential barriers in order to help educators establish flexible lessons and learning environments, Examine how to embed this into on-going supports for systemic implementation to meet the needs of all students.

## What's Missing in Fact Fluency Multiplication/Division Instruction?

## Presenter: Tonda Thompson

Location: Meeting Room 11
We will outline an approach to instruction for multiplication and division that will progress along a learning path where students move from repeated counting on and back by ones or use of skip counting and repeated addition, to facile multiplicative reasoning in the range 1 to 100 .

## Lead the Way! The Key Role of the Administrator in Successful Implementation

Presenter: Julie Holmes
Location: Meeting Room 2
This session will focus on building a district administrator's capacity to support teachers in implementing AVMR assessments and teaching within their universal curriculum and intervention teaching. We will discuss the pitfalls of implementation and strategies to overcome them. Time will be spent discussing ways to empower administrators/ principals to ask the right questions and use data that guides their school goals and improves student learning for ALL.

TUESDAY, APRIL 25, 2023 - DAY 1

## AFTERNOON BREAKOUT SESSIONS (12:30 p.m. - 1:40 p.m.)

## Featured Speaker Session

The Role of Children's Reflection in Mathematics Learning

Presenters: Dr. Beth MacDonald \& Dr. Jonathan Thomas Location : Grand Ballroom A

In this breakout session, we explore the role Piagetian discussions of abstractions has with children's reflective activity and mathematics learning. To explore these theoretical and practical relations, we will begin with a mathematical task, which prompts participants to reflect on their activity. Next, we will guide discussions with the intent to bring forward connections within the literature and participants to discuss connections to literature, while considering when a child is experiencing productive vs. unproductive struggles in their mathematics experiences.

## Featured Speaker Session

Equitable Mathematics Instruction and the "Rights of the Learner"

## Presenter: Dawn Dibley

Location: Meeting Room 1
Do learners have rights? What rights do they have? Come and explore how the "Rights of the Learner" support equitable mathematics instruction and how Math Recovery teaching practices can ensure that the rights of each and every learner are acknowledged, respected, and met.

## Spotlight on The 3 Aspects of Number

Presenters: Rachel Rogers and Tonda Thompson
Location: Meeting Room 4
Developing mastery of arithmetic is within the grasp of every student. Similarly, developing day-to-day lessons that are both challenging and accessible is within the grasp of every teacher. Math Recovery's research on the 3 Aspects of Number separates number knowledge into 3 parts: verbal, symbolic, and quantitative. Incorporating all 3 aspects of number allows students to access content that is just beyond the cutting edge of their knowledge and skill level. This session will explore easy-to-implement ways to incorporate the 3 aspects of number into common K-5 tasks and lessons.

## WIN (What I Need): Daily Math Intervention

## Presenters: Michelle Harmon, Kathy Stice and Erin Norman

Location: Meeting Room 2
WIN (What I Need) Daily Math Intervention was developed to provide equitable math intervention to meet each student at their current academic level based on a specific grade level standard. Small groups are developed using standards based data. Flexible groups are created and appropriate instructional activities are planned for daily 30 minute small group instruction. Math interventionists typically work with the highest need students applying AVMR strategies that meet the focused standard. The goal for this session is to provide participants tools to implement WIN small group instruction in grade level bands while using AVMR strategies. The process will be shared and audience members will be able to watch WIN time in action.

## TUESDAY, APRIL 25, 2023 - DAY 1

## Transform and Roll Out

Presenter: Lista Schwarz

Location: Meeting Room 5

Our journey has been one of deliberate planning. We love to share our journey and some of the tools used along the way for implementation of Add+Vantage Math Recovery training and classroom transformations. Both Administration and Teachers Leaders can utilize our planning tools and presentations shared for their own districts development and rollout.

## IEP SMART Goal Writing: Connecting the LFIN to Grade-level Standards to Produce Targeted IEP SMART Goals

## Presenters: Pennie Caldwell and Carrie Rzasa

Location: Meeting Room 3
Learn about one district's process for writing developmentally appropriate SMART goals for students' IEPs, using Math Recovery frameworks to connect student learning to grade level standards. Participants will have a chance to examine their own standards and student data and work on drafting SMART goals based on Math Recovery's Learning Framework in Number, models of learning progression, the Instructional Framework in Number and/or the Classroom Instructional Framework for Early Number. Our goal is for participants to leave with an understanding of how to write IEP goals that connect grade level standards and Math Recovery models.

## Getting the Biggest Bang for Your Buck with Small Group Instruction

## Presenters: Katherine Meyers and Amanda Satcher

Location: Meeting Room 10
Learn how to coordinate the personnel and resources available at your school to give your students the best and most productive small group experience possible. In the presentation we will present how we tackled the problems of scheduling, collaboration, data review, progress monitoring, assessment, and re-assessment of students for optimal grouping. We will take questions and facilitate peer to peer discussions that will help attendees begin to plan for more productive small group instruction that meets the needs of every student in the class.

## The Hurdles of Classroom Implementation

## Presenters: Patti Muck and Tamara Kerns

## Location: Meeting Room 11

After training, many classroom teachers struggle with how to use their new learning. Whole class implementation can be daunting. This interactive session is designed to help answer the question of now what? Participants will have a chance to explore classroom core materials through a Math Recovery lens. This new lens will aid in making sense of how to implement new understanding, and of how students make sense of mathematics.

## TUESDAY, APRIL 25, 2023 - DAY 1

# Infusing AVMR into Lesson Planning for Multiplication and Division 

Presenter: Megan Coonan<br>Location: Meeting Room 12

In this session participants will explore a "Multiplication and Division" lesson through an AVMR lens. Participants will be digging in to a multiplication and division lesson through a process to encourage discussion around key ideas from AVMR Course 2. The Understand, Diagnose and Take Action protocol will be used to support our time together. We will focus on using data from AVMR assessment tasks, referencing the Model for Multiplication and Division and the Phases of Instruction to support our conversation about meeting a range of student needs.

## AFTERNOON BREAKOUT SESSIONS (2:00 p.m. - 3:10 p.m.)

## Featured Speaker Session

# Five Recommendations to Empower Students with Disabilities as Doers and Thinkers of Mathematics 

## Presenter: Dr. Jessica Hunt

Location: Terrace Room West

Calls for equitable mathematics learning opportunities for students with disabilities have routinely been made over the past 30 years. Framing mathematics intervention from a position of "What do students know and how can I use it?" creates and sustains views of students as mathematically enabled, removing the "problem" from the student and placing it, as a challenge, on the instructional design and interactions between teachers and students.

In this talk, Dr. Hunt shares her own research and experiences empowering students with disabilities in mathematics. Through five actionable recommendations, Dr. Hunt aims to inspire teachers and educational leaders to structure interventions as asset-oriented spaces that work to restore students' agency, belonging, and opportunities to make sense of their own reasoning.

## Allying through Formative Assessment

## Presenter: Dr. Jonathan Bostic

Location: Meeting Room 1
The purpose of this session is to (a) discuss formative assessment - both formal and informal, (b) link it to diversity, equity, and inclusivity, (c) examine informal assessment practices that can drive student learning and instructional decisions, and (d) reflect on school- or district-wide assessment practices through initiatives and PLCs. Bring your questions and let's learn about assessment practices that you can put into place next week.

## TUESDAY, APRIL 25, 2023 - DAY 1

## One Small Change: The Ripple Effect of Structuring Instruction

Presenters: Cindy Townsend and Angela Lipscomb

Location: Meeting Room 12

Join us as we outline our journey to achieve wide-spread results with one small change. We are constantly looking for ways to improve our system that supports and sustains Math Recovery. Our team discovered a recurring theme: structuring impacts all future math success. Our message is making one small change, adding 5-15 minutes of structuring instruction, you can achieve massive results. We created a website for staff to learn about structuring and a video database for just-in-time professional learning so teachers have short, real-life examples of structuring activities they can reproduce with minimal preparation. Our goals for the session are to share our highs and lows, what we learned and next steps in our work-in-progress.

## Jump into the Phases of Instruction for Addition and Subtraction to 100 with the Bead String

Presenters: Thuc-Khanh Park, Katie Leadbetter and Susan Whited

Location: Meeting Room 11
Expand on your experiences with the Bead String in AVMR2 and MRSp2 courses to support instruction in Addition \& Subtraction to 100 through lesson design, hands-on activities, and student video. Explore the benefits and limitations of the bead string setting within the phases of instruction from the Developing Number Knowledge text. Participants collaborate and engage to develop teaching progressions with the bead string setting to advance students' sophistication with non-count-by-ones strategies.

## If You Can't Beat Em'... Join Em'! Math Recovery ${ }^{\circledR}$ Meets the Pop-Its!

Presenters: Jenny Lynch, Nikki Carney and Jeanne Hogberg
Location: Meeting Room 5
As we come out of Covid, students are coming to us with greater social emotional needs than ever before. Let's take the ever-popular Pop-Its and make them come alive in our classrooms and small group instruction. We will highlight how to use a wide variety of colorful Pop-lt's along with strong questioning to move kids in their thinking. Join us as we watch video clips and share ideas around early and middle number sense in an engaging way by using these colorful Pop-Its! We will cover structuring 1 to 20, higher decade addition \& subtraction, and multiplication \& division. You will have hands-on time to play and take away a fabulous resource to use right now in your math instruction!

## Moving Beyond, "Ours is not to question why, just invert \& multiply!"

## Presenters: Jodi Redman and Meg Brown

Location: Meeting Room 10

In this session, participants will engage in instructional tasks with conceptual models to deepen their understanding of the two meanings for division in fractional contexts. If teaching math with meaning vs. teaching math mimicry is your goal - join us for some fraction fun! Goals: Participants will be able to explain the two meanings for division in the context of fractions. Participants will consider how division with whole numbers can form the basis for understanding division with fractions. Utilizing the dimensions of mathematizing, participants will work through a possible instructional progression for developing their students' understanding of fraction division.

DAY 1 SESSIONS continued next page

## TUESDAY, APRIL 25, 2023 - DAY 1

## AVMR Training - Now What? A Coach's Perspective

## Presenter: Charlotte Tucker

Location: Meeting Room 4

For this presentation, you will hear about how Bellingham, MA has begun to use Math Recovery teachings to help analyze curriculum needs, and then how we have made this information actionable for teachers in the classroom. This will be done through the lens of a case study on how one elementary school in Bellingham is trying to improve our students' multi-digit addition and subtraction capabilities by addressing the skills needed across grade levels K-3. We will touch on several areas regarding our processes and procedures as well as how we engage teachers with this work and how they are implementing it within their classrooms.

## Scaling Up Math Recovery ${ }^{\oplus}$ : Continuing Our Journey

Presenters: Erin Peyerk, Johnelle Hershberger and Cindy Compton
Location: Meeting Room 3
Central Office administrators will share how the district has taken a systems approach to the implementation of Math Recovery ${ }^{\ominus}$. After acquiring a US Math Recovery ${ }^{\circledR}$ Council School Award, the district also braided state and federal funding sources to provide time and support for a cohort of math leaders, beginning with MRSp training. Presenters will discuss how the district prioritized internal sustainability in order to expand Math Recovery ${ }^{\ominus}$ to classroom teachers as well as middle and high school intervention classes. Lessons learned and student achievement data will be shared.

## Maintaining Rapport While Providing Feedback

Presenters: Kate Anderson and Lori Loehr
Location: Meeting Room 2
Providing feedback to colleagues can feel uncomfortable at times. This session will investigate ways in which we might provide that feedback while maintaining rapport and cultivating a positive relationship. We will explore a framework for feedback conversations and consider ways to connect Math Recovery Guiding Principles.

## WELCOME RECEPTION, INSTRUCTIONAL ACTIVITY SHOWCASE, \& BOOK SIGNING

## 3:40 p.m. - 4:45 p.m. - Welcome Reception, Instructional Activity Showcase, \& Book Signing <br> Mingle with educators at an hors d'oeuvre reception Tuesday evening. Meet new people, catch up with old friends and network with colleagues from around the United States and internationally! Try new games and activities at Instructional Activity Showcase tables and gather ideas to use in your home district. Bring your Sage \& Corwin Publishing Math Recovery ${ }^{\oplus}$ series books to have them signed by the authors.

## Meeting Room: Grand Ballroom A

Sponsored by: US Math Recovery Council®, SAGE Publications, Corwin Press, Mathlmagine, MathRack , and Mount Holyoke College.

## TUESDAY, APRIL 25, 2023 - DAY 1

## INSTRUCTIONAL ACTIVITY SHOWCASE

The Instructional Activity Showcase allows participants to share a fun teaching idea, a new teaching tool, management techniques and/or other fun ways to teach math! It is designed for Math Recovery ${ }^{\ominus}$ teachers to share classroom games, activities, or ideas in a round robin setting. Don't miss out on the fun!

## Meeting Room: Grand Ballroom A

| ACTIVITY | FACILITATED BY |
| :---: | :---: |
| Meet a Board Member! | USMRC Board of Directors |
| Meet the Authors and have your books signed: Anderson Norton, Jim Martland, Beth MacDonald, Jonathan Thomas, \& Dawn Dibley | Math Recovery Book Series Authors |
| Teaching Early Number Domain with Ready Set Math \& Add+VantageMR ${ }^{\circledR}$ (AVMR) Course One | Kurt Kinsey \& Tonda Thompson |
| Teaching Middle Number Domain with Ready Set Math \& Add+VantageMR ${ }^{\oplus}$ (AVMR) Course Two | Melissa Wilke \& Megan Coonan |
| Teaching the Fractions Domain with Ready Set Math | Andrew Potter |
| Explore Multiplication and Division of Fractions Conceptually \& Add+VantageMR ${ }^{\ominus}$ (AVMR) Fractions Course | Christy Lyle |
| Math Champs | Katie Leadbetter \& Tamara Kearns |
| Math Recovery ${ }^{\text {® }}$ Specialist, Part 1 \& 2: Give us a year, we'll change your life! | Carrie Rzasa \& Thuc-Khanh Park |
| Classroom Instructional Bundles and Kindergarten Math Readiness \& Engagement Pack | Kate Anderson Mike Busch |
| Exploration of Membership Offerings, Workshops, and Video Shares | Mollie Gabrielson \& Dee Swanson |
| Cross Number Discovery Puzzles \& Games | Dawn Dibley |
| Forefront Education | David Woodward |

US Math Recovery Council ${ }^{\circledR}$ wishes to thank all facilitators and sponsors who made contributions towards the Welcome Reception and Instructional Activity Showcase. Sponsorships include SAGE Publications, Corwin Press, Mathlmagine, MathRack, and Mount Holyoke College.


## Share a Cross-Number story for a chance to win prizes!

Record up to a 3 minute video clip on anything Cross-Number related... how you use it in your class, your favourite game, what you like about it.


Scan for examples!

Videos accepted Feb 1 - Dec 31, 2023.
Student videos are also welcome.
The final collection will be posted on the Mathlmagine website winter 2024.


Early-bird Prizes: Four \$100 Amazon gift cards,
draws in June and November 2023
Grand Prize: Fully paid trip to the 2025 Math Recovery Conference, draw in December 2023

## MASTER OF ARTS IN TEACHING MATHEMATICS

ONLINE/HYBRID | 2 YEARS | PART TIME
Become a leader in mathematics teaching and learning. Our master's program will deepen both your mathematical content and pedagogical knowledge and support you to develop the necessary skills to be a leader. It is designed to meet the needs of working K-8 teachers, coaches and instructional specialists who want to continue to learn and grow their craft.

Contact Program Director, Marria Carrington, mcarrington@mtholyoke.edu, to learn more and ask about our \$10,000 scholarships for the Math Recovery community.
www.mtholyoke.edu/go/matm


SCAN ME

10

## WEDNESDAY, APRIL 26, 2023 - DAY 2 SCHEDULE

| Wednesday, April 26 at a Glance |  |
| :--- | :--- |
| SESSION TIMES | SESSION DETAILS |
| 6:30 a.m. - 7:30 a.m. | Math Recovery Fun Run / Walk |
| 7:00 a.m. - 10:00 a.m. | Registration/Information Desk |
| 7:30 a.m. - 8:30 a.m. | Breakfast - Grand Ballroom A |
| 8:30 a.m. - 8:50 a.m. | Welcome \& Leadership Celebration - |
|  | Grand Ballroom A |
| 8:50 a.m. - 10:00 a.m. | Annual Membership Meeting - |
|  | Grand Ballroom A |
| 10:00 a.m. - 10:20 a.m. | Break |
| 10:20 a.m. - 11:30 a.m. | Breakout Sessions |
| 11:30 a.m. - 12:30 p.m. | Lunch - Grand Ballroom A |
| 12:30 p.m. - 1:40 p.m. | Breakout Sessions |
| 1:40 p.m. - 2:00 p.m. | Break |
| 2:00 p.m. - 3:10 p.m. | Breakout Sessions |
| 3:10 p.m. - 3:30 p.m. | Break |
| 3:30 p.m. - 4:40 p.m. | Keynote Session - Grand Ballroom A |
| 4:40 p.m. - 4:45 p.m. | Closing |

## TRACKS KEY:

- AVMR 1 \& AVMR 2 Teacher
- AVMR Fractions
- AVMR Teacher (Course 1)
- AVMR Teacher (Course 2)
- General
- Leader/Champion
$\diamond$ Student Support: Intervention
- Student Support: Special Education

School-Based Support
System Support
Interest areas indicated by the presenter.

## WEDNESDAY, APRIL 26, 2023 - DAY 2

## MATH RECOVERY FUN RUN/WALK



## 6:30 a.m. - 7:30 a.m. - Meet at the Astronaut Statue

Interested in going for a run during the conference with your peers?
Join us Wednesday morning at 6:30 a.m. at the Michael P. Anderson Memorial (astronaut) statue in breezeway between Spokane Opera House and Convention Center. Pick your distance. Pick your pace. When you run with this group, everyone is supported no matter the pace.

See the map below for routes you can take during the Fun Run/Walk. There are three shorter route options (in red) along with a 1.4 mile route (in blue). Also be sure to take part in the Selfie Scavenger Hunt along the way!


## © PROTEIN PUCK

Thank you to Protein Puck for providing participants with plant-based protein bars. www.proteinpuck.com

Red Route - Short Routes Blue Route-1.4 Mile Route

WEDNESDAY, APRIL 26, 2023 - DAY 2
WELCOME AND LEADERSHIP CELEBRATION (8:30 a.m. - 8:50 a.m.)
Welcome and Leadership Celebration
Presenters: Christina Miller, Kristin Frang, Mollie Gabrielson, Lisa Jobin Location: Grand Ballroom A
Petey MacCarty, and Jenni Scholla

## ANNUAL MEMBERSHIP MEETING (8:50 a.m. - 10:00 a.m.)

Annual Membership Meeting
Presenters: Christina Miller, PhD, Executive Director
Location: Grand Ballroom A

## BREAKOUT SESSIONS (10:20 a.m. - 11:30 a.m.)

## Featured Speaker Session <br> The Equity Principle: Rehumanizing Mathematics in the Classroom

## Presenters: Dr. Beth MacDonald \& Dr. Jonathon Thomas

Location: Grand Ballroom A
In this breakout session, we explore dimensions of equitable mathematics teaching and learning and ways to rehumanize mathematics in the elementary classroom. We will examine rich tasks, learning scenarios, and language through a critical lens to consider how we might better construct more inclusive, just, and equitable learning experiences for our students.

## Featured Speaker Session

Digging Into Dyscalculia

## Presenter: Dawn Dibley

Location: Meeting Room 1
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. (Spoiler alert, many of these interventions align with Math Recovery teaching practices.)

## WEDNESDAY, APRIL 26, 2023 - DAY 2

Beyond Equal Groups

Presenters: Susan Whited, Thuc-Khanh Park and Tamara Kerns

Location: Meeting Room 3

How can we help students progress from drawings of equal groups and counting by ones to using multiplicative based strategies to solve multiplication and division tasks? In this session you have a chance to see students reason with multiplicative tasks through video and hands-on experience with the $n$-tiles setting. Leave with a deeper understanding of the phases of multiplicative instruction along with a focus on the use of progressive mathematization to support students in the development of more sophisticated strategies and reasoning over time.

## Getting Ready to Go With Ready Set Math

Presenter: Melissa Wilke

## Location: Meeting Room 5

Ready Set Math includes high-quality, engaging mini-lessons and activities that can be used to support math instruction across primary, intermediate, and middle school classrooms. Learn more about our newest resource that is grounded in the research of the Learning Framework in Number (LFIN) and inspired by the Math Recovery Guiding Principles for Classroom Teachers. This session will meet the needs of curious minds, whether you've already started using the resource or you're considering the resource as a way to support implementation of AVMR or enhancing your current curricular math resources. This session will allow for you to engage with the resource and have your questions and wonderings to be asked and addressed.

## Digestible Bites: Progress Toward Successful AVMR Implementation

Presenters: Kim Hagman and Lesley Maxfield

Location: Meeting Room 2
How does a district grow in Math Recovery Implementation after 10 years and multiple interruptions? In our district, Math Recovery started as a Title 1 funded implementation and continues to spread throughout our system, despite barriers in and out of our control. The return to a "normal" year has ignited a new vision in our district, and all stakeholders are deeply invested in student success in innovative ways. We are meeting buildings and teachers where they are and growing implementation in digestible bites. Join us as we explore how we've taken what we've learned from the past and are creating new ways to engage all stakeholders in the power of the AVMR lens.

## The Purple Book: Tying it all Together

## Presenters: Beth Brady and Tara Brandt

Location: Meeting Room 11
Haven't had a chance to explore the book Teaching Number in the Classroom with 4-8 Year-Olds (AKA: the "Purple Book")? This session is for you! We will reawaken learning from AVMR Course 1 and extend knowledge by viewing videos, instructional activities, and the learning trajectories offered in the "Purple Book." This is an opportunity to put practice into action, analyzing instructional activities and their efficacy - in addition to adapting them for various levels, constructs, and settings. This course is ideal for classroom teachers and interventionists who have taken AVMR Course 1, and would like to put their learning into practice. Participants must bring their own copy of Teaching Number in the Classroom with 4-8 Year-Olds.

DAY 2 SESSIONS continued next page

WEDNESDAY, APRIL 26, 2023 - DAY 2

## Where does Math Recovery ${ }^{\circledR}$ fit into a Multi-tiered System of Support?

Presenters: Dina Mendola and Michelle Tatrow
Location: Meeting Room 10
Intended for participants that have awareness of the course but may not know full amount of capacity. Together we will look at rubrics, look fors and walk throughs from a very high-level perspective to support implementation of math practices.

## Beyond AVMR and MRSp: Cultivating Supportive School and District Systems Inclusive of Math Recovery ${ }^{\circledR}$ <br> Presenters: Dr. Dana Gosen and Kim Fox <br> Location: Meeting Room 12

Math Recovery Courses are the heart of the MR approach to teaching and learning. Yet, the courses are not enough for transformative improvement to happen across a system. We also need to be attentive to systems-level aspects as they relate to Math Recovery so that conditions are created where educators and children may thrive. During this session, participants will consider: how system assets may be leveraged to inform a MR implementation and sustainability plan, the existence of assets in their systems, and ways they might work with colleagues in support of improvement efforts inclusive of MR. Participants (teams encouraged) will begin to draft or refine a component of their Math Recovery implementation and sustainability plan.

## Dear Math Interventionist: You're Not Alone

Presenters: Mollie Gabrielson, Amanda Roble, Heather Benton,

Location: Meeting Room 4 and Sam Elkin

The USMRC Math Champs team has been directly working with students and schools for over a year. During this session team members will share stories of how the team has supported students, educator, schools, and districts. Resources used to support the work will be highlighted, discussed, and shared with session participants. Come and hear stories from the field and engage in discussions on resources used to support the work with students and educators.

## BREAKOUT SESSIONS (12:30 p.m. - 1:40 p.m.)

## Cross-Number Discovery Puzzles \& Games

## Presenter: Dawn Dibley

Location: Meeting Room 1
This session will introduce participants to the Cross Number puzzles and give suggestions for using them. Participants will have the opportunity to interact with the games and share ideas for their use in their instructional setting.

## WEDNESDAY, APRIL 26, 2023 - DAY 2

## Observing Mathematical Behaviors: What can we learn when watching students?

Presenters: Patti Muck and Dee Swanson
Location: Meeting Room 3
Your students accurately count visible items... Now what? The goal of this session is to connect Steffe's research to instructional practices with a focus on answering the following: Why is the Figurative Stage/Construct important? What experiences engender the development of a child's ability to keep track or count on when counting concealed objects, especially beyond finger range? Participants will outline cognitive shifts and the behaviors that exemplify SEAL Stages/Constructs 1-3, then develop instructional progressions that support the shifts.

## Creating Structure for Algebraic Thinking

## Presenter: Kristin Frang

## Location: Grand Ballroom A

How is whole number instruction linked with instruction for algebraic reasoning? As part of the Dimensions of Mathematization, structuring numbers draws attention to number relationships and organizing numbers into an increasingly dense network of number relations. These structures and relationships, including mathematical properties of operations, can support students in reasoning algebraically. In this session, we will explore students' additive and multiplicative reasoning and make connections to how we can nudge students to think algebraically.

## Kentucky Center for Mathematics - Sparking a Passion for Effective Math Intervention

Presenters: Lisa Riggs and Julie Adams
Location: Meeting Room 10
This session will explore ways that the KCM provides teacher support through both in-person collegial team meetings, video shares, and the use of technology. We will discuss and explore the resources provided in the Kentucky Numeracy Project Intervention Guide (KNPIG) and also the Virtual Resources that were developed in response to the needs of Math Interventionists teaching remotely during Covid. We will also discuss how the KCM plans to continue to offer support to Math Intervention teachers in the post-pandemic teaching environment. Those that attend this session will walk away with online resources and ideas to support the implementation of Math Recovery and AVMR.

## Bridging Whole Number to Fractions with Mental Actions

## Presenter: Andrew Potter

Location: Meeting Room 11
Mental actions support how students engage with number concepts related to whole number and fractions. This session will focus on the mental actions of unitizing, partitioning, disembedding, and iterating to develop fraction knowledge. We will explore the trajectory of the mental actions, how whole number knowledge supports student reasoning with fractions, and how mental actions make fractions instruction more accessible to students.

WEDNESDAY, APRIL 26, 2023 - DAY 2

## Collegial Learning Through Video Analysis

Presenter: Kurt Kinsey

Location: Meeting Room $4 \diamond$

Come join others from the Math Recovery community for some in-depth discussion around MR and AVMR assessment, teaching, and learning. Discussion will evolve from video excerpts shared by session participants and Math Recovery staff. Attendees are encouraged to bring a video to share, but all are welcome to join. This is a great opportunity to bring your questions and share your experiences in a supportive collegial environment.

## Follow-Up Support for Sustained Implementation: A Champion and Leader Networking Session

## Presenter: Erin Peyerk

Location: Meeting Room 12
Your teachers are trained...What's next? Follow-up and coaching support is imperative for transfer and implementation. In this networking session, meet and connect with fellow Champions and Leaders so we can problem-solve, think creatively, and share ideas about how we can support our teachers after their initial training. Participants will leave with a collaboratively-developed list of potential learning opportunities and considerations for enhancing their own implementation plans.

## AVMR Pictionary Time! Draw Your Ideal Math Classrooms and Connect to Math Recovery ${ }^{\circledR}$ Guiding Principles and Math Practices

Presenter: Crystal Bissing
Location: Meeting Room 5
We all have a vision of what our ideal math classroom look like in our mind's eye. After completing an AVMR course, one may wonder how to make this ideal math classroom a reality. In this session, come draw your ideal math classrooms. Explore and connect the Themes of Progressive Mathematization, Math Recovery Guiding Principles, and Standards for Mathematical Practices to bring your ideal math classroom to life.

## A Pathway to Statewide Impact in Michigan

## Presenter: Mike Vallier

Location: Meeting Room 2
Have you ever wondered how to grow your implementation of Math Recovery? Math Recovery Leaders and Champions across the state of Michigan began school and ISD level implementation and are working towards a sustainable, state-wide "way of being" when it comes to teaching and learning mathematics. Join some of the Michigan Math Recovery Leaders in learning about our model of implementation, how we are connecting with a variety of stakeholders, and leveraging funding sources to support equity across the state. We will share our lessons learned along the way and the next steps in our journey.

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## WEDNESDAY, APRIL 26, 2023 - DAY 2

## AFTERNOON BREAKOUT SESSIONS (2:00 p.m. - 3:10 p.m.)

## Structuring Numbers to 10: Moving from Frames to Applications

## Presenters: Lori Loehr and Thuc-Khanh Park

Location: Meeting Room 2
We often hear that students who can name the number of dots on a ten-frame do not consistently apply that knowledge to additive and subtractive tasks. In this session, we will examine a process to support students to know their addition and subtraction facts within 10 by leveraging knowledge of key combinations, such as 5 -plus and doubles. This hands-on session will deepen your understanding of Structuring Numbers to 10, as well as several Dimensions of Mathematization.

## Continuous Momentum

## Presenter: Lista Schwarz

Location Meeting Room 12
AVMR training creates a momentum with teachers to begin an impactful teaching experience. What happens after AVMR training? How can teachers be supported? Teachers need support after training for that momentum to continue and support their impact on student learning. Teachers need to have resources readily available to them. Many will need to revisit specific instructional strategies to feel comfortable using them with students. Providing different learning opportunities can bridge the training and the implementation of best practices that provide learning opportunities teachers desire to implement for their students. We will share presentations and materials for some of our follow up learning opportunities.

## Stop, Drop and Just Teach! Moving Beyond the Formal Assessments

## Presenters: Melissa Wilke and Megan Coonan

Location: Meeting Room 1
This session will deepen your awareness and use of the AVMR and MR models beyond the assessment schedules and build your capacity for applying the Guiding Principle of on-going assessment. The models have the potential to be brought alive during whole group, small group and one-on-one instruction. Through this session you will be engaged in simulated experiences to analyze student work from day-to-day math experiences and explore the use of data recording practices. Join us to answer the burning question, "How do I do Math Recovery beyond the formal assessments?"

WEDNESDAY, APRIL 26, 2023 - DAY 2

# I've Given the Addition and Subtraction Assessment, Now What? A Mathematical Progression to Support All Students 

Presenters: Reagan Johnson and Katie Mills

Location: Meeting Room 11
Our presentation will look at addition and subtraction data of students we work with as interventionists. We will also bring a range of Addition and Subtraction data scores for teachers to work with such as high performing schools who need enrichment. Teachers will collaborate to determine prerequisites needed to be proficient mathematicians. After giving teachers some time to collaborate together, we will present a progression of skills needed based on the collaboration and have manipulatives for a hands-on experience. The goal is to give teachers a deeper understanding of how to differentiate with students at different levels and what skills will be needed to decrease math deficits and increase mathematical numeracy students.

## Leveraging Conscious Discipline's 3 Brain States ${ }^{\circledR}$ to Maximize Your Intervention

## Presenter: Courtney Willert

 Location: Meeting Room 10This presentation will build administrators, interventionist, and teachers capacity around the brain states to further student success during an intervention. First, attendees will develop an understanding of the three brain states®, executive, emotional and survival as identified by Conscious Discipline. Next, they will take a deeper look addressing challenging behaviors commonly seen in students. These behaviors will be used to identify what state of the brain a child is in and how to get them ready for learning. Strategies will be shared to promote coaching students to the state best for learning. The session will end with time for attendees to make a plan to support student learning when behaviors are challenging.

## Using Your AVMR Lens to Support Families

## Presenters: Jessica Lucia and Lesley Maxfield

Location: Meeting Room 3
Everyone has a tool kit, but our tools are different. The tools you possess as a teacher might be different than those your students' families possess, but by sharing them we cultivate a wonderful system of support for children. In this session, we will discuss the importance of building a bridge between the social-emotional world of early learners and the academic focus of kindergarten and beyond. We will dig into the effect of knowing where students are in the early number domains and translating that into a powerful targeted family engagement experience.

DAY 2 SESSIONS continued next page

## WEDNESDAY, APRIL 26, 2023 - DAY 2

## Providing Purposeful Implementation Support to Add+VantageMR ${ }^{\circledR}$ Participants

Presenter: Brad Thornburgh
Location: Meeting Room 4
Partnering with teachers and district/building leaders by providing purposeful support to continue their Math Recovery learning is a critical step in transforming the mathematics learning experiences for all students. Brad will share a model for supporting educators that have completed Add+VantageMR courses. The model includes follow up professional learning opportunities, regional network meetings focused on developing a Multi-Tiered System of Support for mathematics, and targeted instructional coaching for teachers. Participants will explore a variety of resources used in the regional model and to begin thinking about designing and implementing a system to support Math Recovery journeys in their school, district, or region.

## Empowering Educators and Inspiring Change Through Math Recovery ${ }^{\circledR}$ Coaching <br> Presenters: Katie Leadbetter and Sherry Lee Hornbacher

Struggling to find your groove as a Math Recovery Leader? This session promotes the idea that everyone needs a coach and how to meet educators where they are. Learn about effective coaching behaviors through role-play and exemplar videos. Attendees will leave with strategies for successful coaching sessions.


## WEDNESDAY, APRIL 26, 2023 - DAY 2

KEYNOTE SESSION (3:30 p.m. - 4:40 p.m.)

## Teaching Mathematics Conceptually: Examining the U.S. Math Recovery Council's ${ }^{\circledR}$ Guiding Principles

Keynote: Dr. Beth MacDonald \& Dr. Jonathan Thomas

Location: Grand Ballroom A

We will provide an overview of the structure and dive deep into portions of our new book, Teaching Mathematics Conceptually: Guiding Instructional Principles for 5-10-year-olds. Throughout this discussion, we plan to discuss some of the unique contributions this book provides by diving deeper into four key chapters. First, we discuss connections between learning progressions/trajectories with several frameworks utilized in the Math Recovery series. By considering these connections, we hope to bring forward critical aspects of effective mathematics teaching. Second, we consider the impact teachers' noticing and monitoring of students' mathematics in classroom practices has with how instructional decisions are shaped in a mathematics classroom. These impacts relate often with effective assessments, which are embedded in instructional practices throughout mathematics classrooms. Third, we delve into rich theoretical relationships between children's mathematics learning and their reflective activity while solving mathematical tasks. These relationships center students' mathematics teaching and learning in the classroom. Finally, we explicate equitable practices in mathematics classrooms. Often effective mathematics teaching is designed to provide multiple access points, multiple exits points, and student-centered mathematics instruction. However, this chapter contributes largely to an expansion of this work and ways educators can be intentional about equitable mathematics teaching practices. Final take-aways from this discussion will include practical ways educators can connect these guiding principles to effective student and teaching practices in mathematics education.

## CLOSING (4:40 p.m. - 4:45 p.m.)

## Closing: Igniting a Bright Future

Presenter: Christina Miller, PhD, Executive Director

Location: Grand Ballroom A

## US MATH RECOVERY COUNCIL® BOARD OF DIRECTORS



LESLEY MAXFIELD
Imaxfield@mathrecovery.org
Board Chair


JONATHAN BOSTIC
jbostic@mathrecovery.org


DANA GOSEN
dgosen@mathrecovery.org


## JOHN LOEHR

jloehr@mathrecovery.org


JULIE HOLMES
jholmes@mathrecovery.org


AMELIA HOUGH-ROSS
ahough-ross@mathrecovery.org


## JEFF LITTLE

jlittle@mathrecovery.org Chair Elect


## REGINA LIGON

rligon@mathrecovery.org
о.

BETH MACDONALD
bmacdonald@mathrecovery.org

MIKEL VALLIER
mvallier@mathrecovery.org

## US MATH RECOVERY COUNCIL` STAFF

US Math Recovery Council ${ }^{\circledR}$ is thrilled to be represented by many of our staff of over 90 people here in Spokane at the 2023 National Conference. Feel free to get in touch with us by visiting www.mathrecovery.org or emailing info@mathrecovery.org.

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OUR MISSION

The mission of the US Math Recovery Council ${ }^{\circledR}$ is
To transform numeracy education
To connect research with practice
To empower educators to advance student
mathematical thinking and success
...through Math Recovery ${ }^{\circledR}$ principles.

US Math Recovery Council ${ }^{\circledR}$
510 Lone Oak Road, Suite 600 • Eagan, MN 55121
p: 952-683-1521 • f: 952-683-1525
info@mathrecovery.org • www.mathrecovery.org f

