Wisconsin Mathematics Council
47th Annual Conference

MEASURING Mathematical Proficiency

Green Lake, WI
May 6-8, 2015
Welcome to the 47th Annual Wisconsin Mathematics Council Conference at Green Lake!

Conference Co-Chair's Message

Welcome to the 2015 Wisconsin Mathematics Council Annual Conference, Measuring Mathematical Proficiency. At this three-day professional development event, you can choose from close to 200 high quality sessions led by educators from around the state and nation. The conference’s goal is to provide you with ideas surrounding the implementation of best-practice strategies to enhance student learning in the mathematics classroom. From highlighting the Common Core State Standards for Mathematics to showcasing instructional and assessment practices that respond to the learning needs of all students, there is sure to be multiple sessions for everyone. In addition, the program will include specific day-long strands focused on Computer Science Education and Science, Technology, Engineering, and Mathematics (STEM).

Mathematical proficiency includes developing students’ conceptual understanding, procedural fluency, adaptive reasoning, strategic competency, and productive disposition. As such, this year’s presenters will illustrate strategies for integrating the Standards for Mathematical Practice, orchestrating mathematical discourse, engaging student in high cognitive demand mathematical tasks, infusing technology to ignite student thinking, designing intervention strategies to support and extend student understanding, and implementing a balanced assessment approach to measure students’ mathematical proficiency.

The conference will also provide you with the opportunity to network with educators from around the state. Come collaborate with others during Wednesday’s Pre-Conference line-up that includes a discussion on Growth Mindset from Dr. Jo Boaler or dialogue about the latest technology tools for the mathematics classroom with Kevin Krenz. Stay for the IGNITE session on Wednesday evening to hear fast-paced presentations from local and national presenters. Mingle with educators and share your academic year successes at the Thursday evening Celebrate WMC reception or get energized by the annual Pi Run on Friday morning, both held on conference grounds.

The conference program committee has definitely planned a worthwhile three-day experience that will assist you and your district in measuring students’ mathematical proficiency!

Jenn and Maggie

Jennifer Kosiak and Maggie McHugh, Wisconsin Mathematics Council 2015 Conference Co-Chairs

President’s Message

Welcome to the 47th Annual Conference of the Wisconsin Mathematics Council. I am excited about the quality and diversity of sessions we have to offer once again this year. I would like to thank the Conference Co-Chairs, Jennifer Kosiak and Maggie McHugh, for pulling everything together to make this possible, as well as the Program Chair, Dave Ebert, for coordinating many outstanding opportunities for professional growth at this year’s conference.

I highly recommend that you check out the keynote speaker options scheduled for Thursday and Friday. Each keynote speaker is nationally recognized for their incredible contributions to the world of mathematics education. Beyond the keynote speakers, you will find a program packed with excellent sessions, providing interesting information and ideas about the teaching and learning of mathematics. Whether you are a classroom teacher, pre-service teacher, math coach, supervisor, administrator, or just someone who loves mathematics, I know you will find many sessions that meet your needs.

I encourage you to reach out and connect with other colleagues while enjoying this wonderful learning experience. This gathering of roughly 1,500 educational professionals presents a rare opportunity to network and share ideas in a face-to-face setting. Each year, I look forward to many interesting conversations with people from all parts of the state. One thing is always guaranteed when I head home on Friday afternoon – I am inspired by the experience, and my head is spinning with new ideas.

I would also encourage you to stop by the WMC table in the Kraft Centre Lobby to learn more about WMC while you are here. We welcome any questions or feedback you might have regarding this conference or any other WMC activities.

I hope to meet many of you over the next two days. Thank you for being part of WMC, and for your commitment to mathematics education. Enjoy the conference!

Doug

Doug Burge, Wisconsin Mathematics Council President
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Conference Information

On-site Registration

On-site registration, located in the Kraft Centre lobby, is open Wednesday, 6:00 -10:00 p.m., Thursday, 7:00 a.m.-4:30 p.m., and Friday, 7:00 a.m.-1:00 p.m.

Conference Give-Away

Each conference attendee will receive a small token of appreciation from the Wisconsin Mathematics Council and the Annual Conference Committee at registration check-in.

Getting the Most Out of Your Conference Experience

WMC has provided several tools for you to use in order to assist you in making your conference a successful experience!

- **Daily conference addendums** provide information about any schedule changes that we are made aware of in advance. Addendums are available at the WMC registration table in the Kraft Centre and in the lobbies of the main buildings.

- **Use the personal planning pages** to schedule sessions that fit your needs. Planners can be found on pages 13 and 39. Make sure to plan at least one keynote speaker into your schedule. Popular sessions fill quickly, so plan alternate sessions in case your chosen session is full.

- **Last minute program changes** will be listed in the Conference Program Addendum, available at Registration, and on the TV monitors located in the Kraft Centre.

- **Grade band specific** posters provide a listing of sessions within each grade band.

- **Personal assistance** from WMC Board members, conference pages and volunteers is available throughout the two day conference.

Parking

Available parking areas are identified on the Green Lake Conference Center map located on the back cover of this booklet. WMC Pages, who will be wearing red jackets, will direct you to available parking areas. Allow yourself time to park and become acquainted with the conference center grounds prior to your first session. Once the available parking areas are full, participants will be directed by the WMC Pages to road-side parking. **Note: Starting on Tuesday, May 5th, the parking lot next to the exhibit hall and adjacent cordoned off area are reserved for our exhibitors.**

Conference Lunch Options

Conference attendees have two lunch options available; you can eat in the Kraft Centre Dining Room or you can grab a quick lunch in the tent, located across from the Kraft Centre courtyard. If you plan to attend one of the sessions scheduled during the lunch hour, you may wish to pick up your lunch in the tent as a quicker alternative.

WMC Information Booth

The WMC booth is located in the Kraft Centre Lobby. Volunteers and staff will gladly answer questions about the conference schedule and membership. PI-34 packets for your PDP are available as well.

WMC Items for Sale

WMC items, such as logo apparel from Lands End, pins, flash drives, clings, post-it notes, and more, are available to order or for sale at the WMC booth in the Kraft Centre Lobby. Make sure to stop at the WMC booth and check them out!

Lost and Found

Lost and Found is located at the WMC Registration Desk in the Kraft Centre Lobby.

Exhibits

Conference exhibits are located in Pillsbury Hall; be sure to visit the exhibit to find a wealth of information and items from a variety of publishers and exhibitors. The Exhibit hall provides a great opportunity to explore the most up to date resources and technology available for math educators. Some exhibitors will be giving presentations; look for the Exhibitor Session tag throughout the book for these presentations. The Exhibit hall is open from 8:00 a.m. until 4:00 p.m. on Thursday and 8:00 a.m. until 1:30 p.m. on Friday.

WMC Board and Committee members, as well as college student pages, will be around to assist you in finding buildings, rooms and alternate sessions.
**Exhibitor Passport**

Take your exhibit passport along as you make your way around the entire Exhibit hall, and make sure each of the exhibitors stamps your passport! When all of your squares are stamped, bring it back to the WMC booth, located in the Kraft Centre Lobby, to be entered in the daily door prize drawings.

**District or School Groups**

Welcome! Take advantage of your numbers to split up and take in as many sessions as possible. You can copy and share handouts when you get back home. If you’d like a place to meet up and share at the conference, the lounges on the upper (lodging) floors of Kern and Bauer are generally empty during the day. If you need assistance, come to the WMC Booth located in the Kraft Centre Lobby.

**Handouts**

Please be kind about handouts, and take only one for yourself unless directed otherwise. This leaves enough for everyone in the session and a few extra for those who may have missed it. Our speakers spend their own money to prepare and copy handouts, so please make your own copies for your team when you get home. If you would like additional information from a session, request the speaker’s email address to receive handouts. Thank you for your kind consideration.

Some speakers will be sharing their handouts and/or PowerPoint presentations via WMC’s website at www.wismath.org. These items will be posted after the close of the conference.

**Official Conference Badges Are Required**

WMC requires attendees to wear their conference name badges at all times during conference hours. Badges must be worn in all sessions and in the Exhibit hall. The badges not only indicate that you are fully registered for the conference but also serve as a courtesy to other registrants. If you need a replacement name badge, go to On-site Registration in the Kraft Centre Lobby.

**Unauthorized Commercial Solicitation**

WMC has a strong commitment to high standards of scholarship and professional development. Commercial solicitation is strictly prohibited in all conference sessions, except those clearly labeled as Exhibitor Sessions. Solicitation of business within the Exhibit hall by persons other than exhibitors is strictly prohibited. Please report any violations to the WMC On-Site Registration staff in the Kraft Centre Lobby.

**Green Lake Conference Center Information**

**Emergency Contact Number:** (920) 294-3323

**First Aid:** Go to the nearest land line and dial 9-911 or 0

**Security**

Dial 0 to reach an operator on the Green Lake grounds.

**Fire Codes**

WMC continues to make every attempt to provide adequate seating for participants at the Annual Conference. For your safety and to adhere to fire regulations, meeting rooms that fill to capacity will be restricted thereafter. Standing room is not an option; only persons occupying a seat will be allowed to remain in meeting rooms.

**Smoking/Alcohol Restrictions:**

We ask that all attendees observe the Green Lake Conference Center’s non-smoking and no alcohol policies in all meeting rooms, guest accommodations, dining rooms and while on conference center grounds. WMC thanks you for respecting GLCC policies.

**Session Location Key**

<table>
<thead>
<tr>
<th>Session #</th>
<th>Building - Room (Capacity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>RWI - Mahaney (40)</td>
</tr>
<tr>
<td></td>
<td>Grades 4-8</td>
</tr>
</tbody>
</table>

**Don't Slow Me Down with that Calculator**

Learn to master a multitude of little-known, super-shortcut techniques and strategies involving addition, subtraction, fractions, squaring and multiplication that will leave your calculator-dependent friends in the dust.

Cliff Petrak, Brother Rice High School, Chicago, IL.
2015 Annual Conference Committees

Planning & Program Committee
Jennifer Kosiak, UW-La Crosse, La Crosse (Co-Chair)
Maggie McHugh, La Crosse Design Institute, La Crosse (Co-Chair)
Doug Burge, Holmen School District, Holmen
Dave Ebert, Oregon High School, Oregon
Amy Traynor, DeLong Middle School, Eau Claire

Pre-Conference
Diana Kasbaum, WI Department of Public Instruction, Madison

Calculators
Mike Tamblyn, Whitewater High School, Whitewater

Technology
Mike King, St. Francis High School, St. Francis
Butch Bretzel, UW-Milwaukee, Milwaukee

Building Support
Mark Getz, West Middleton Elementary School, Middleton

“Celebrate WMC” Event
Jennifer Kosiak, UW-La Crosse, La Crosse (Co-Chair)
Maggie McHugh, La Crosse Design Institute, La Crosse (Co-Chair)
Doug Burge, Holmen School District, Holmen

Exhibits
Barb Borgwardt, Arcadia School District, Arcadia
Kathi Snyder, Southern Bluffs Elementary (Retired), La Crosse

Orientation
Cathy Burge, Viking Elementary School, Holmen

Pages
Linda Uselmann, Fond du Lac (Page Coordinator)
Susan Kidd, UW-Whitewater, Whitewater
Carmen Rivers, UW-Whitewater, Whitewater
Jennifer Kosiak, UW-La Crosse, La Crosse

2014-2015 Board of Directors

Doug Burge, President
K-12 Mathematics Coordinator
Holmen School District, Holmen

Jennifer Kosiak, President-Elect
Professor of Mathematics
UW-La Crosse, La Crosse

Michelle Parks, Secretary
Mathematics & Science Consultant
CESA 10, Chippewa Falls

Wendy Meyer, Treasurer
Mathematics Teacher
Edgerton High School, Edgerton

Barb Borgwardt, PK-2 Representative
Mathematics Coach
Arcadia & Gale-Ettrick-Trempealeau School Districts, Arcadia & Galesville

Paige Richards, Grades 3-5 Representative
Mathematics Program Specialist
Brookhill Institute of Mathematics, Waukesha

Amy Traynor, Grades 6-8 Representative
Mathematics Teacher
DeLong Middle School, Eau Claire

Tony Pickar, Grades 9-12 Representative
Mathematics Teacher
DC Everest School District, Weston

Kevin McLeod, College/University Representative
Mathematics Professor
UW-Milwaukee, Milwaukee

John Korth, Wisconsin Technical College Representative
Mathematics Instructor
Mid-State Technical College, Wisconsin Rapids

Susan Popelka, Statewide Representative
Mathematics Teacher
River Falls High School, River Falls

Lori Williams, Statewide Representative
Mathematics Specialist
Manitowoc Public School District, Manitowoc

Mary Ann Hudziak, Administrator/Supervisor Representative
Math & Science Learning Coordinator
CESA 6, Oshkosh

Diana Kasbaum, Ex Officio DPI Representative
Mathematics Consultant
Department of Public Instruction, Madison

Ken Davis, Ex Officio DPI Representative
Mathematics Consultant
Department of Public Instruction, Madison

Jonathon Zabel, Ex Officio
Mathematics Teacher
Madison Middle School, Appleton

Becky Walker, Ex Officio
Director of Curriculum
Appleton Area Public Schools, Appleton

Debra Pass, Ex Officio
WMC Executive Services
Wisconsin Mathematics Council Inc., Germantown
Common Core State Standards for Mathematics Sessions
Make sure to attend at least one session on the Common Core State Standards for Mathematics that will focus specifically on a grade-band Domain or Conceptual Category. These sessions will help you bring to life the CCSSM Content and Practice standards in your own classroom.

STEM Sessions
New to this year’s conference are special STEM (Science, Technology, Mathematics, and Engineering) sessions. STEM education is critical in supporting Wisconsin and other states to compete in the global economy. According to the Wisconsin Department of Public Instruction, “STEM-related job openings in Wisconsin will more than double between 2008 and 2018, and that in the 21st century all careers will require some facility with STEM.” Please consider attending at least one of these STEM sessions on either day of the conference. Sessions specific to Computer Science will also be showcased throughout the conference.

Administrators Series
On Thursday, May 7, administrators are invited to participate in an ADMINISTRATORS’ SERIES of sessions designed specifically for administrators, featuring nationally and internationally respected educational leaders, including Dr. Timothy Kanold, Dr. Jo Boaler, and Dr. Jennifer Bay-Williams. See page 10 for more information.

π Activities
The 2015 Annual Conference will be packed with a variety of π activities in celebration of the wonders of π on this special year. The irrational number π represents the ratio of the circumference of a circle to its diameter and has been calculated to over 13 trillion digits after the decimal. Activities will include a π Fun Fact Scavenger Hunt on Thursday and a π Recital on Friday, where we will recruit teachers to recite the first 2015 digits of π. Join us on Friday morning for the Fourth Annual Pi Run, a 3.14 kilometer fun run/walk around the Green Lake Conference Center grounds. Make sure to stop by the Wisconsin Mathematics Council’s membership table, located in the Kraft Centre Lobby, for details on these activities as well as fun π-related activities for your own classroom. In addition to these exciting activities, all attendees will receive a “Digits of π” poster to commemorate this special year of π!

WMC’s IGNITE Session
Back by popular demand, the WMC Annual Conference will host the 5th Annual IGNITE Session. Speakers will each have five minutes to present a key idea or topic. IGNITE sessions are fast-paced, thought provoking, and entertaining. Speakers Karim Ani, Sandy Atkins, Jennifer Bay-Williams, Jennifer Kosiak, Calvin Irons, Eli Luberoft, Kevin McLeod, Mary Mooney and Michelle Parks will ignite your passion for mathematics education.

Author Book Signings
Nationally recognized educator, Tim Kanold, will be signing copies of his new books immediately following his keynote on Thursday from 10:45-11:15 a.m. in the Pillsbury lobby.

Mathematics author, Jo Boaler, will be signing copies of her newly updated book, What’s Math Got to Do with It?, immediately following her keynote address on Thursday from 2:15-2:45 p.m. in the Pillsbury lobby

“Celebrate WMC” Event
There’s no need to leave the conference grounds when you attend the “Celebrate WMC” Reception at the Green Lake Conference Center on Thursday evening. Plan to spend time with your colleagues, meet WMC current and past leadership, and enjoy visiting with friends while you enjoy a generous variety of hors d’oeuvres, a beer and wine cash bar, and great conversation. A short awards and recognition program will be part of the reception as well as the popular WMEF Heads and Tails Raffle (see below for more information). Registration for the reception is FREE with your Thursday conference registration!

WMEF Heads and Tails Event
Make plans to attend the Third Annual Heads & Tails event, sponsored by the Wisconsin Mathematics Education Foundation (WMEF) in conjunction with the Houghton Mifflin Harcourt Publishing Company, as part of the Celebrate WMC event on Thursday evening. This is a great opportunity to win a $500 Best Buy gift card! Houghton Mifflin Harcourt Publishing Company has graciously donated funding for the prizes. Participation in the event is just $15, allowing three opportunities to participate. You can sign up for the Heads & Tails Raffle at the WMEF booth on Wednesday afternoon and all day Thursday. Proceeds from this fundraiser will go toward supporting WMEF-sponsored awards, scholarships and grants that provide funding for classroom projects.
Conference Highlights cont.

WMEF Raffle
In conjunction with the Heads and Tails event, WMEF is holding a raffle. Items include a signed Packer football, Brewers tickets, a pearl necklace, a registration for the 2016 WMC Annual Conference, and much, much more! Raffle tickets can be purchased at the WMEF booth - 1 ticket for $5 or 5 tickets for $20.

WMC Movie Night
Brooklyn Castle
Brooklyn Castle (2012) tells the stories of five members of the chess team at a below-the-poverty-line inner city junior high school that has won more national championships than any other in the country. The film follows the challenges these kids face in their personal lives as well as on the chessboard, and is as much about the sting of their losses as it is about the anticipation of their victories.

Thursday Morning Math-ercise
If you would love to get energized before attending the Thursday sessions this year, join us for a math-themed yoga/Pilates style workout featuring stretching and poses accessible for all levels of fitness. Come and join us for a fun start to the day! Wear clothes you can move in, bare feet are fine, and yoga mats are optional.

Fourth Annual Pi Run
Get out your running shoes and participate in the Fourth Annual Pi Run, with proceeds benefitting the Wisconsin Mathematics Education Foundation. The 3.14 kilometer fun run/walk around the Green Lake Conference Center wooded grounds starts and finishes on Hillside Road and will take place on Friday morning at 6:15 a.m. before the conference. Winners will receive a pie, sponsored from the Hubbard Avenue Diner! You can find more information or register for this event at the WMEF table in the Kraft Centre lobby.

“Measuring Up? How About a Little Competition?”
Take part in this fun activity for teachers of all grades with an emphasis on teachers of grades 4 through 8. Nicholas Restivo, the Executive Director of MOEMS® (Mathematical Olympiads for Elementary & Middle Schools) and his colleagues will run a Mini-Tournament to get your Creative Problem Solving juices flowing right after lunch! You will be asked to solve five math olympiad-type problems on your own in fifteen minutes. Immediate feedback will be provided to see how you fared.

The second round gets even more exciting: five problems; 10 minutes; a team of four (4) teachers hand in only 1 set of answers. You’ll have to figure out how to work together as a team…don’t you tell your students that all the time? Once again, immediate feedback and then awards to the high scoring individuals, and teams.

Hint: try to arrange for your team members (4 per team) while you’re at lunch, or even sooner. It will save us some time once we get under way. This event is a great non-pressured way to experience what 150,000 students all over the world experience monthly. Plan to be there!

Keynote Speaker Highlights

Timothy D. Kanold, Ph.D., is an award-winning educator, author, and consultant. He is the former director of mathematics and science and served as superintendent of Adlai E. Stevenson High School, District 125, a model professional learning community district in Lincolnshire, Illinois. Dr. Kanold is committed to equity and excellence for students, faculty, and school administrators. He conducts highly motivational professional development leadership seminars worldwide with a focus on turning school vision into realized action that creates greater equity for students through the effective delivery of professional learning communities for faculty and administrators. He is a past president of the National Council of Supervisors of Mathematics (NCSM) and coauthor of several best-selling mathematics textbooks over several decades. He has authored articles and chapters on school leadership and development for education publications. Dr. Kanold’s keynote is made possible through the generous support of Houghton Mifflin Harcourt. (Thursday AM keynote)

Jo Boaler, Ph.D., is a Professor of Mathematics Education at Stanford University, the editor of the Research Commentary Section of The Journal for Research in Mathematics Education (JRME), an analyst for PISA testing in the OECD, and author of the first MOOC on mathematics teaching and learning. She is the recipient of a National Science Foundation ‘Early Career Award’ and the NCSM Kay Gilillard Equity Award (2014). She is the author of seven books and numerous research articles. Her latest books What’s Math Got To Do With It? (2009) published by Penguin, USA and The Elephant in the Classroom (2010) published by Souvenir Press, UK, both aim to increase public understanding of the importance of good mathematics teaching. She serves as an advisor to several Silicon Valley companies, and a White House presenter on girls and STEM. She recently formed www.youcubed.org to give teachers and parents the resources and ideas they need to inspire and excite students about mathematics. (Thursday PM keynote)
Jennifer Bay-Williams, Ph.D., is an Associate Professor of Mathematics Education at the University of Louisville (Kentucky). Jennifer has published many articles on teaching and learning in NCTM journals. She has also co-authored the following books: Math and Literature: Grades 6-8, Math and Nonfiction: Grades 6-8, Navigating through Connections in Grades 6-8. Jennifer taught elementary, middle, and high school in Missouri and in Peru, and continues to work in classrooms at all levels with students and with teachers. She serves as the editor of the upcoming NCTM Yearbook (2012) and is the Immediate Past President of the Association of Mathematics Teacher Educators (AMTE). (Thursday AM & PM keynotes)

Karim Ani is the Founder of Mathalicious. A former middle school math teacher, he thought there should be a better way to teach and learn math. Mathalicious is transforming the way math is taught by providing middle and high school teachers with the most relevant, engaging, and effective math lessons anywhere. Mathalicious designs lessons around real-world topics that students care about, from sports to technology to health & wellness. This contextual approach helps students make sense of the math, and develop both conceptual understanding and procedural fluency. Karim taught eighth grade math in Virginia and New York City before becoming a middle school math coach. Karim has degrees from Stanford University & UVA, and thinks that Socrates will always be a better teacher than C3PO. (Friday AM keynotes)

Eli Luberoff, CEO, Desmos, began his programming life on his TI-83 graphing calculator in elementary school, culminating with a working version of Monopoly, which was destroyed when he removed the backup battery by accident. He began working on the software that would become Desmos.com during a year-long hiatus from Yale University in 2007, returning to graduate summa cum laude with degrees in Math and Physics in 2009. Eli was also selected by Bloomberg Businessweek as one of the top 25 entrepreneurs under 25 in 2011. (Thursday and Friday PM keynotes)

Rosemary Irons, M.S.Ed., is a consultant and curriculum developer for mathematics education specializing in early childhood. She has advised teachers on mathematics curricula in Australia, United States of America and Singapore. Rosemary was a Senior Lecturer in Mathematics Education at the Queensland University of Technology for over 35 years and has written a wide range of innovative and practical classroom resources to help young children build their mathematical understanding. Rosemary conducts seminars for teachers and presents at mathematics education conferences around the world. (Thursday and Friday AM keynotes)

Sandy Atkins, Ph.D., is the Executive Director of Creating AHAs, LLC. An inspiring speaker, Dr. Atkins is committed to finding those ‘aha moments’ when mathematical connections are made by teachers and students. Her sessions are thought provoking and practical. An educator for over 25 years, Dr. Atkins has extensive experience at the elementary to university levels. She received her Ph.D. from Florida State University in 1992 and has since focused on turning research into practice. With particular interest in effective mathematical intervention, she currently works with school districts across the United States in developing conceptual understandings, or creating ahas, for mathematics teachers and students in grades K-8. (Thursday and Friday AM keynotes)

Marilyn Trow, is the National Director of Math Partnerships for Scholastic Education, where she trains and speaks about math intervention. Ms. Trow has extensive experience in the development, marketing, and national launch of major leading math programs, holding senior management positions with leading publishing houses. Founder of the professional development house, KTM Math Visions, she has worked with teachers across the United States as a trainer and developer of intervention materials for mathematics with an emphasis on East Asian models of instruction. In addition, Ms. Trow has been recognized as an exemplary classroom teacher. She holds a BS in Education from Iowa State University and an MBA in Marketing from Drake University; she is a member of The Honor Society of Phi Kappa Phi. Ms. Trow’s keynote is made possible through the generous support of Scholastic Education, Math Solutions. (Thursday AM keynote)
Meetings & Event Overview
Wednesday, May 6, 2015

7:30 a.m.
Pre-Conference Check-in (Kraft Centre Lobby)

8:30 a.m.–4:00 p.m.
Pre-Conference Workshops

12:00 noon–1:00 p.m.
Pre-Conference Lunch

2:00–8:00 p.m.
Exhibitor Check-in (Pillsbury)

4:00 p.m.
Check-in for Green Lake Lodging

5:00–6:30 p.m.
Dinner served in Kraft Centre Dining Room (requires separate ticket purchased from Green Lake Conference Center)

5:15–6:00 p.m.
NCSM dinner served in Mitchell Dining Room (requires separate ticket purchased from Green Lake Conference Center)

6:00–7:30 p.m.
WI Mathematics Leadership Council Spring Meeting (Kraft Centre Tower Dining Room)

6:00–10:00 p.m.
On-site Registration (Kraft Centre Lobby)

8:00 p.m.
Opening Session & WMC’s IGNITE Session (Bauer-Morehouse B/C)
Social following IGNITE Session in the Bauer-Morehouse A.

NCSM Dinner
5:15-6:00 p.m. Kraft Centre Mitchell Dining Room
NCSM, a sister organization to NCTM, is the Council for Leadership in Math Education. If you are interested in leadership at a grade, building, CESA, state, or national level, please join us for dinner and informal chat that will provide up to date information about resources, trends, and strategies to support leadership, coaching, supporting or supervising math teachers from K-12. Pick up your dinner in the Kraft Centre Dining Room (ticket required; see GLCC lodging form to order tickets) or bring your own dinner to the Mitchell Dining Room.

WI Mathematics Leadership Council Networking Dinner
6:00-7:30 p.m. Kraft Centre Tower Dining Room
Anyone serving in a leadership capacity is invited to attend and network with colleagues. Feel free to eat prior to the meeting or pick up and bring your dinner (ticket required for GLCC dinner option; see GLCC lodging form to order tickets).

WMC’s IGNITE Session
8:00 p.m. Bauer-Morehouse B/C
Don’t miss WMC’s Wednesday evening IGNITE Session where speakers will each have five minutes to present a key idea or topic. IGNITE sessions are fast paced, thought provoking, and entertaining. National and Wisconsin mathematics personalities, Karim Ani, Sandy Atkins, Jennifer Bay-Williams, Jennifer Kosiak, Calvin Irons, Eli Luberoff, Kevin McLeod, Mary Mooney and Michelle Parks will be participating. A social, immediately following the IGNITE Session, will be held in Bauer-Morehouse A.

If a session you wanted to attend is full, look for posters in the lobbies of main conference buildings for session alternatives.
Kevin Krenz teaches mathematics at Monona Grove High School. His interest in technology was kindled early on when he was introduced to programming with LEGO/Logo in elementary school. Since then, he has loved learning by tinkering. He is particularly interested in the ways in which technology changes how we explore, investigate, discover, learn, and create.

Jo Boaler, Ph.D., is a Professor of Mathematics Education at Stanford University, and the co-founder of youcubed. She is also the editor of the Research Commentary Section of The Journal for Research in Mathematics Education (JRME), an analyst for PISA testing in the OECD, and author of the first MOOC on mathematics teaching and learning. Former roles have included being the Marie Curie Professor of Mathematics Education for Europe, a mathematics teacher in London comprehensive schools and a researcher at King’s College, London. Her Ph.D. won the national award for educational research in the UK and her book, Experiencing School Mathematics, won the ‘Outstanding Book of the Year’ award for education in Britain. She is an elected fellow of the Royal Society of Arts (Great Britain), and a former president of the International Organization for Women and Mathematics Education (IOWME). She is the recipient of a National Science Foundation ‘Early Career Award’ and the NCSM Kay Gilliland Equity Award (2014). She is the author of nine books and numerous research articles. Her latest books, What’s Math Got To Do With It? (2009), published by Penguin, USA, and The Elephant in the Classroom,(2010), published by Souvenir Press, UK, both aim to increase public understanding of the importance of good mathematics teaching. She serves as an advisor to several Silicon Valley companies, and a White House presenter on girls and STEM. She recently formed www.youcubed.org to give teachers and parents the resources and ideas they need to inspire and excite students about mathematics.

The Mindset Revolution:
Teaching Mathematics for a Growth Mindset

In recent years scientific studies have demonstrated that student and teacher ‘mindsets’ have a profound impact on learning. Students with a ‘growth mindset’ (Dweck, 2006) who believe that intelligence and ‘smartness’ can be learned and that the brain can grow from exercise learn more effectively, displaying a desire for challenge and showing resilience in the face of failure. Such behaviors encourage greater math persistence, engagement and high achievement. Mathematics teachers play a critical role in the development of mindsets and this session will review the ways to teach for a growth mindset, including attention to classroom norms, math tasks, questions and assessment.

In this day long workshop we will consider together what it means to teach math for a growth mindset. We will look together at different mathematics tasks, different forms of assessment and grading, grouping arrangements, encouragement and praise, and many other aspects of mathematics teaching. We will do this through classroom videos and through working on math tasks together.

Teaching like a Techie

It’s a challenge to keep up with current technologies, and an even greater challenge to use them in your classroom. In this workshop, you will be introduced to a variety of freely available tools, such as Desmos, GeoGebra, and Plotly. More importantly, we will discuss, design, and create powerful lessons using these tools. Make sure to bring your computer and curiosity!
Meetings & Event Overview
Thursday, May 7, 2015

6:15 a.m.
Thursday Morning Mathercise (Lakeview)

7:00 a.m.–4:30 p.m.
On-site Registration (Kraft Centre Lobby)

7:00–7:45 a.m.
First Timer Orientation (Kraft Centre Tower Dining Room)
Look for the red, yellow and blue balloons!

7:00–9:00 a.m.
Breakfast served in Kraft Centre Dining Room (requires separate ticket purchased from Green Lake Conference Center)

8:00 a.m.–4:00 p.m.
Visit the Exhibit hall (Pillsbury)

8:00 a.m.
Sessions Begin

10:00 a.m.
Check out time for Green Lake lodging

11:00 a.m.-12:30 p.m.
WMC President’s Luncheon (RWI-Veranda B)

11:00 a.m.–1:30 p.m.
Lunch

3:00-3:45 p.m.
Graduate Credit Course Drop-in Session (RWI-Veranda B)

3:45-4:30 p.m.
Wisconsin Mathematics Council Annual Meeting (Kraft Centre Mitchell Dining Room)

4:00 p.m.
Sessions conclude

4:30-7:30 p.m.
Celebrate WMC (Kraft Centre Dining Room) including the WMEF Heads and Tails Raffle Event

8:00 p.m.
WMC Movie Night
Brooklyn Castle (Bauer-Morehouse B/C)

Thursday Morning Mathercise
6:15 a.m. Lakeview
If you would love to get energized before attending the Thursday sessions, join us for a math-themed yoga/Pilates style workout featuring stretching and poses accessible for all levels of fitness. Come for a fun start to the day! Wear clothes you can move in, bare feet are fine, and yoga mats are optional.

First Timers Welcome/Orientation
7:00-7:45 a.m. Kraft Centre Tower Dining Room
Meet new friends and get acquainted with the conference ins and outs. The Membership Committee will provide an overview of the conference program, answer questions and help you select appropriate sessions. Bring your breakfast or just drop in for valuable information to make the most of your first Annual Conference experience. Look for the red, yellow and blue balloons!

Administrator Series
Please note individual session locations.

- 7:45-9:00 a.m. Kraft Centre Mitchell Dining Room
  Administrator’s Series Kickoff Breakfast with Dr. Timothy Kanold

- 9:30-10:30 a.m. Lakeview
  Turning Your Instruction and Assessment Vision (TPOV) into Action! – Dr. Timothy Kanold

- 11:30 a.m.-12:30 p.m. Lakeview
  √25 “Radical” and “Real” Ways to Help Students Become Proficient in Understanding Operations and Number – Grades K-8 – Dr. Jennifer Bay-Williams

- 1:00-2:00 p.m. Lakeview
  The Mindset Revolution: Teaching Mathematics for a Growth Mindset – Dr. Jo Boaler (interactive wrap-up session)

WMC President’s Luncheon
11:00 a.m.-12:30 p.m., RWI-Veranda B
WMC’s President cordially invites all Wisconsin Mathematics Council Past Presidents to attend this annual gathering. Meet with friends, review WMC directions and explore new directions. By invitation only.

Author Book Signings
National recognized educator, Tim Kanold, will be signing copies of his new books immediately following his keynote on Thursday from 10:45-11:15 a.m. in the Pillsbury lobby.

Mathematics author, Jo Boaler, will be signing copies of her newly updated book, *What’s Math Got to Do with It?*, immediately following her keynote address on Thursday from 2:15-2:45 p.m. in the Pillsbury lobby.
Graduate Credit Course Drop-in Session
3:00-3:45 p.m. RWI-Veranda B
Earn one graduate credit through UW–La Crosse for attending the WMC Annual Conference. To qualify, participate in two of the three days of the conference. You must also drop-in during this course session to receive additional assignments. The cost is $110 in addition to WMC conference registration; on-line course registration and payment information can be found on the WMC website.

WMC Annual Meeting
3:45-4:30 p.m. Bauer-Beaty
ALL ARE INVITED to learn about the business of the Wisconsin Mathematics Council. Enjoy refreshments and conversation with WMC board and committee members as they share plans and review the past year’s accomplishments. A short business meeting will inform you of WMC activities and encourage you to become more involved.

“Celebrate WMC”
4:30-7:30 p.m. Kraft-Main Dining Room
There’s no need to leave the conference grounds when you attend the “Celebrate WMC” Reception at the Green Lake Conference Center on Thursday evening. Plan to spend time with your colleagues, meet WMC current and past leadership, and enjoy visiting with friends while you enjoy a generous variety of hors d’oeuvres, a beer and wine cash bar, and great conversation. A short awards and recognition program will be part of the reception as well as the popular Wisconsin Mathematics Education Foundation Heads and Tails Raffle. Participation is FREE with your Thursday conference registration!

Movie Night – Brooklyn Castle
8:00 p.m. Bauer-Morehouse B/C
Brooklyn Castle (2012) tells the stories of five members of the chess team at a below-the-poverty-line inner city junior high school that has won more national championships than any other in the country. The film follows the challenges these kids face in their personal lives as well as on the chessboard, and is as much about the sting of their losses as it is about the anticipation of their victories.

The CCSS Standards for Mathematical Practice challenge students to think like mathematicians. How is this different from what is happening in your classroom now?

CPM Engages Students
We enrich the problem by embedding the Standards for Mathematical Practice. We make the problem more engaging! We add ambiguity.

CPM Problem:
If the image of George Washington’s face on Mount Rushmore is 60 feet tall, what is the length of his nose? How did you get your answer?

Can the students DO the CPM problem?
Yes, they can. Give them time to think. How can students find a solution? What tools can they use? What information might they gather?

CPM Supports Educators
Our professional development is a model for how we expect CPM math classrooms (all classrooms, really!) to look. The teachers are actively engaged while they are learning about the methodology and content of the CPM courses. Teachers are doing mathematics and discussing the issues that are at the heart of conducting a student-centered, problem-based course.

Learn more at: www.cpm.org
When planning your session choices, write down the session number, building and room. Also select some nearby alternatives in the event that your first choice is full.

<table>
<thead>
<tr>
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<td>Fact Fluency for Understanding: Going Beyond Drill Through Algebraic and Operational Activities</td>
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<td>What the Heck is a Rekenrek?</td>
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<td>Relational Thinking Across the Grades</td>
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<td>108</td>
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<td>8:00-9:00 a.m.</td>
<td>3-5 Students as Problem Solvers</td>
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<td>109</td>
<td>Kern-Brown</td>
<td>8:00-9:00 a.m.</td>
<td>Using Tape Diagrams/Conceptual Understanding/Math Practice</td>
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<td>Strengthen Your Core-One Activity at a Time</td>
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<td>Kern-Johnson</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Taking Math Expressions to the Next Level</td>
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<td>145</td>
<td>RWI-Veranda C</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Fraction Kit: Helping Students Understand Fractions</td>
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<td>210</td>
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<td>211</td>
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<td>1:00-2:00 p.m.</td>
<td>Paths to Proficiency-Based Learning</td>
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<td>212</td>
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<td>Supporting/Learning/Students’ Reasoning &amp; Sense Making</td>
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<td>Mental Math Means Mastering Number Facts and Much More</td>
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<tr>
<td>103</td>
<td>Bauer-LaDue</td>
<td>8:00-9:00 a.m.</td>
<td>Session 1: Curious about Math Expressions? Come See</td>
</tr>
<tr>
<td>104</td>
<td>Kern-Boehr</td>
<td>8:00-9:00 a.m.</td>
<td>Number Talks...Changing the Culture of Math</td>
</tr>
<tr>
<td>105</td>
<td>RWI-Crystal</td>
<td>8:00-9:00 a.m.</td>
<td>Hit the Ground Running: My First Year of Teaching</td>
</tr>
<tr>
<td>106</td>
<td>Kern-Brayton Case A</td>
<td>8:00-9:00 a.m.</td>
<td>National Board Certification...P D that Matters</td>
</tr>
<tr>
<td>108</td>
<td>Bauer-Lightbody</td>
<td>8:00-9:00 a.m.</td>
<td>3-5 Students as Problem Solvers</td>
</tr>
<tr>
<td>109</td>
<td>Kern-Brown</td>
<td>8:00-9:00 a.m.</td>
<td>Using Tape Diagrams/Understanding &amp; Math Practices</td>
</tr>
<tr>
<td>110</td>
<td>Bauer-Beaty</td>
<td>8:00-9:00 a.m.</td>
<td>Developing a Culture of Learning and Flourishing</td>
</tr>
<tr>
<td>123</td>
<td>RWI-Crystal</td>
<td>9:30-11:00 a.m.</td>
<td>Connecting Math to Visual Models</td>
</tr>
<tr>
<td>124</td>
<td>Kern-Stansbury</td>
<td>9:30-11:00 a.m.</td>
<td>Increase the Math Proficiency/PARENTS of Your Students!</td>
</tr>
<tr>
<td>125</td>
<td>Kern-Cary</td>
<td>9:30-11:00 a.m.</td>
<td>Whole-y Fractions!!!!</td>
</tr>
<tr>
<td>126</td>
<td>Bauer-LaDue</td>
<td>9:30-11:00 a.m.</td>
<td>Effective Questioning &amp; Technology Tools to Improve Instruction</td>
</tr>
<tr>
<td>127</td>
<td>Kern-Brown</td>
<td>9:30-11:00 a.m.</td>
<td>Math in a Box, for Upper Elementary Students</td>
</tr>
<tr>
<td>128</td>
<td>Kern-Brayton Case A</td>
<td>9:30-11:00 a.m.</td>
<td>Make a Box...Learn Geometry</td>
</tr>
<tr>
<td>136</td>
<td>Bauer-Morehouse A</td>
<td>9:30-10:30 a.m.</td>
<td>Strengthen Your Core-One Activity at a Time</td>
</tr>
<tr>
<td>139</td>
<td>Lakeview</td>
<td>9:30-10:30 a.m.</td>
<td>Turning Instruction &amp; Assessment Vision (TPOV) into Action!</td>
</tr>
<tr>
<td>140</td>
<td>Bauer-Morehouse C</td>
<td>9:30-10:30 a.m.</td>
<td>Using Multiple Representations/Fractions</td>
</tr>
<tr>
<td>144</td>
<td>Kern-Johnson</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Taking Math Expressions to the Next Level</td>
</tr>
<tr>
<td>145</td>
<td>RWI-Veranda C</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Fraction Kit: Helping Students Understand Fractions</td>
</tr>
<tr>
<td>146</td>
<td>Bauer-Morehouse A</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Multi-Digit Multiplication &amp; Division: Promotes Flexibility</td>
</tr>
<tr>
<td>147</td>
<td>Bauer-Morehouse B</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Creative Problem Solving Every Day</td>
</tr>
<tr>
<td>161</td>
<td>Bauer-Beaty</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Teaching and Learning Mathematics - What Does the Principal Have to Do with It?</td>
</tr>
<tr>
<td>162</td>
<td>Lakeview</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>√25 &quot;Radical&quot; and &quot;Real&quot; Ways to Help Students Become Proficient in Understanding Operations and Number</td>
</tr>
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<td>201</td>
<td>Kraft Courtyard</td>
<td>12:30-1:00 p.m.</td>
<td>The Power of Parabolas</td>
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<td>206</td>
<td>Bauer-LaDue</td>
<td>1:00-2:00 p.m.</td>
<td>Utilizing Technology/Geometric Concepts in the Early Grades</td>
</tr>
<tr>
<td>207</td>
<td>Bauer-Beaty</td>
<td>1:00-2:00 p.m.</td>
<td>Math Intervention: What is It and How Do I Get Started?</td>
</tr>
<tr>
<td>208</td>
<td>Bauer-Morehouse A</td>
<td>1:00-2:00 p.m.</td>
<td>The Language of Math in the Bilingual Classroom</td>
</tr>
<tr>
<td>210</td>
<td>Kern-Cary</td>
<td>1:00-2:00 p.m.</td>
<td>Build Students' Math Muscle with Low Floor High Ceiling Tasks!</td>
</tr>
<tr>
<td>211</td>
<td>RWI-McGarvey</td>
<td>1:00-2:00 p.m.</td>
<td>Paths to Proficiency-Based Learning</td>
</tr>
<tr>
<td>212</td>
<td>Bauer-Morehouse C</td>
<td>1:00-2:00 p.m.</td>
<td>Supporting &amp; Learning/Students' Reasoning &amp; Sense Making</td>
</tr>
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<td>213</td>
<td>RWI-Veranda A</td>
<td>1:00-2:00 p.m.</td>
<td>Understanding Fraction Multiplication/Division with Visual Models</td>
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<td>214</td>
<td>Bauer-Boddie</td>
<td>1:00-2:00 p.m.</td>
<td>Computer Programming for ANY Grade Level</td>
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<td>RWI-Mahaney</td>
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<td>Measuring Success: Create &amp; Evaluate Learning Plans</td>
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<td>The Mindset Revolution: Teaching Math for a Growth Mindset</td>
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<td>Kern-Cary</td>
<td>2:30-4:00 p.m.</td>
<td>Increase the Mathematical Proficiency of Your Students Using Problem Solving</td>
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<td>Bauer-Lightbody</td>
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<td>Developing the Principles to Actions Math Teaching Practices</td>
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<td>RWI-Crystal</td>
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<td>Rti Roundtable Networking</td>
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<td>228</td>
<td>Bauer-Morehouse B</td>
<td>2:30-4:00 p.m.</td>
<td>Mental Math Means Mastering Number Facts and Much More</td>
</tr>
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<td>229</td>
<td>Kern-Brayton Case A</td>
<td>2:30-4:00 p.m.</td>
<td>Common Core IS Cognitively Guided Instruction</td>
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<td>RWI-McGarvey</td>
<td>2:30-4:00 p.m.</td>
<td>Finding Great Elementary Area Problems</td>
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<td>231</td>
<td>Kern-Brown</td>
<td>2:30-4:00 p.m.</td>
<td>When Do I Have Time to Make Geometry Work Stations?</td>
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<td>238</td>
<td>Bauer-Morehouse C</td>
<td>2:30-3:30 p.m.</td>
<td>Aligning Math Intervention with the Rti Framework</td>
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<td>Kern-Johnson</td>
<td>2:30-3:30 p.m.</td>
<td>Using a Mathematics Continuum in Proficiency Based Reporting</td>
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<td>Administrators - What Do You Need to Know About Teaching and Learning Mathematics?</td>
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<td>Teaching Basic Facts with Fluency in Mind – Grades K-5</td>
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<td>Kraft-Mitchell Dining Room</td>
<td>2:30-3:30 p.m.</td>
<td>WSMI Fellows Social</td>
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<td>243</td>
<td>RWI-Mahaney</td>
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<td>From Research to Reality: Ideas Using High Impact Strategies</td>
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<td>Bauer-Boddie</td>
<td>8:00-9:00 a.m.</td>
<td>Nifty Tools &amp; Assignments</td>
</tr>
<tr>
<td>113</td>
<td>RWI-McGarvey</td>
<td>8:00-9:00 a.m.</td>
<td>Connecting Math Practice Standards to Literacy in the Math Classroom</td>
</tr>
<tr>
<td>114</td>
<td>RWI-Veranda A</td>
<td>8:00-9:00 a.m.</td>
<td>Formative Assessment &amp; Feedback: Informing Teachers, Students</td>
</tr>
<tr>
<td>115</td>
<td>RWI-Veranda C</td>
<td>8:00-9:00 a.m.</td>
<td>Purposefully Analyzing Student Work</td>
</tr>
<tr>
<td>116</td>
<td>Bauer-Morehouse A</td>
<td>8:00-9:00 a.m.</td>
<td>A Parametric Alphabet Activity</td>
</tr>
<tr>
<td>117</td>
<td>Kern-Cary</td>
<td>8:00-9:00 a.m.</td>
<td>Incorporating Math and CTE from the Ground Up</td>
</tr>
<tr>
<td>118</td>
<td>Kern-Johnson</td>
<td>8:00-9:00 a.m.</td>
<td>Early Math Placement Tool (EMPT): Preparing Students/College Math</td>
</tr>
<tr>
<td>119</td>
<td>Lakeview</td>
<td>8:00-9:00 a.m.</td>
<td>It's Time to Improve Math Instruction</td>
</tr>
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<td>RWI-Mahaney</td>
<td>8:00-9:00 a.m.</td>
<td>Looking at the 2014 AP Statistics Test</td>
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<td>Bauer-Boddie</td>
<td>9:30-11:00 a.m.</td>
<td>Exploring Computer Science with Arduino</td>
</tr>
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<td>131</td>
<td>RWI-McGarvey</td>
<td>9:30-11:00 a.m.</td>
<td>Getting Students Talking and Keeping Them Talking</td>
</tr>
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<td>RWI-Veranda A</td>
<td>9:30-11:00 a.m.</td>
<td>Active Learning Academy</td>
</tr>
<tr>
<td>133</td>
<td>RWI-Veranda C</td>
<td>9:30-11:00 a.m.</td>
<td>Measuring Mathematical Proficiency through Systematic Assessment</td>
</tr>
<tr>
<td>134</td>
<td>Kern-Boehr</td>
<td>9:30-11:00 a.m.</td>
<td>Supporting Algebraic Thinking for the Struggling Learners in Grades 7-10</td>
</tr>
<tr>
<td>141</td>
<td>RWI-Mahaney</td>
<td>9:30-11:00 p.m.</td>
<td>Don't Slow Me Down with that Calculator (Mental Math Methods)</td>
</tr>
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<td>137</td>
<td>Bauer-Beaty</td>
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<td>Impacting Mathematical Proficiency in a One-to-One Classroom</td>
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<td>Learning to Ask Questions that Engage Students &amp; Deepen Understanding</td>
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<td>Bauer-Boddie</td>
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<td>Engaging Geometry Students through Application Projects</td>
</tr>
<tr>
<td>150</td>
<td>Kern-Boehr</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Building Up Your Team as a Teacher</td>
</tr>
<tr>
<td>151</td>
<td>Kern-Brayton Case B</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Italian and American High School International Math Collaboration</td>
</tr>
<tr>
<td>152</td>
<td>RWI-Veranda A</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Hands On Activities for Middle and High School Students</td>
</tr>
<tr>
<td>153</td>
<td>RWI-Mahaney</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Geometry &amp; Building Trades: A Blended Approach</td>
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<tr>
<td>154</td>
<td>RWI-McGarvey</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Some Geometric Inequalities</td>
</tr>
<tr>
<td>155</td>
<td>Kern-Brown</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Badger High School - Creating a Learning Environment for All Students</td>
</tr>
<tr>
<td>156</td>
<td>Kern-Cary</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Get Up and Move!!!</td>
</tr>
<tr>
<td>157</td>
<td>Kern-Hanson</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>Improving Math ACT Scores - Small School Aligned-By-Design</td>
</tr>
<tr>
<td>158</td>
<td>RWI-Crystal</td>
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<td>Introductory Programming w/ Java &amp;Understanding by Design Approach</td>
</tr>
<tr>
<td>159</td>
<td>Bauer-Morehouse C</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>What is &quot;Networked&quot; Content and Why Should I Care?</td>
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<td>160</td>
<td>Bauer-LaDue</td>
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<td>Formative Assessment Strategies</td>
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<td>Measuring Success: Using Real-Time Data to Create and Evaluate Personalized Learning Plans</td>
</tr>
<tr>
<td>217</td>
<td>Kern-Hanson</td>
<td>1:00-2:00 p.m.</td>
<td>Personalized Learning: Mobile Madness and the Digital Native</td>
</tr>
<tr>
<td>218</td>
<td>Kern-Stansbury</td>
<td>1:00-2:00 p.m.</td>
<td>Increasing Student Engagement with the Aurasma App</td>
</tr>
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<td>219</td>
<td>Kern-Boehr</td>
<td>1:00-2:00 p.m.</td>
<td>Transnational Education Frontier: Global Trends in Mathematics Education</td>
</tr>
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<td>What is the Probability Your Students Are Proficient in Statistics?</td>
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<td>Top Ten List: What Should Incoming University Students Know?</td>
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<td>3 Apps To Completely Change the Way You Assess In Your Classroom</td>
</tr>
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<td>233</td>
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<td>2:30-4:00 p.m.</td>
<td>What Kind of Lessons Focus on Mathematical Practice B?</td>
</tr>
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<td>Learn How to Program Using Alice!</td>
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<td>235</td>
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<td>Using Geometer's Sketchpad to Enhance Rigor/Secondary Math Courses</td>
</tr>
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<td>236</td>
<td>Bauer-Morehouse A</td>
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<td>Creating Collaborative Cultures - With Students AND with Colleagues</td>
</tr>
<tr>
<td>237</td>
<td>Kern-Brayton Case B</td>
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<td>Investigating Trigonometric Graphs With the Unit Circle</td>
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## Thursday, May 7, 2015
### Grades 13-16

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### Three Ways YOU Can Support WMEF

As we provide scholarships and grants to improve math education in the state of Wisconsin.

- **The Bucket Raffle**  
  Win great prizes! Deadline Thursday 5:30 p.m.

- **Heads or Tails Raffle**  
  Three chances to win a $500 Best Buy gift card!

- **4th Annual Pi Run**  
  Get π shoelaces & a commemorative t-shirt.

**Come to the WMEF booth in Pillsbury Hall for tickets and details!**

Thank you to our sponsors:

- McGraw Hill  
  Brauer Education Grant Sponsor

- Houghton Mifflin Harcourt  
  Heads or Tails Raffle Sponsor

- Goose Bump Grill & Bar  
  Pi Run/Walk Sponsor
8:00-11:00 AM • 8:00-9:00 AM
Thursday, May 7, 2015

8:00 - 11:00 a.m.

101
Kern-Brayton Case B (60)
Grades PK-3

Math Daily 5: Make and Take Games and Activities
A brief overview of our Daily 5 math approach will be followed by a games and activities make and take session. Ample time and workspace will be provided. A great time to share ideas and ask questions.

Jennie Ebert, Prairie View Elementary, Oregon, WI
ejebt@oregonsd.net
Amanda Heath, Prairie View Elementary, Oregon, WI
Molly Anderson, Prairie View Elementary, Oregon, WI

8:00 - 9:00 a.m.  60 Minute Sectionals

102
Kern-Stansbury (32)
Grades PK-1

Nursery Rhyme Mathematics
We will ADD math activities to the phonemic awareness and rhyming activities you may already do. We will MULTIPLY the impact on student learning by measuring, estimating, graphing and having fun. We will share a culminating activity that will leave a lasting impression: Nursery Rhyme Olympics! Nursery Rhymes + Math + Movement = an Amazing Learning Opportunity!

Terrie Schmoldt, Levi Leonard Elementary, Evansville, WI
schmoldtt@evansville.k12.wi.us

103
Bauer-Ladue (24)
Grades PK-6

Session 1: Curious about Math Expressions? Come See What All the Talk is About!
Session 1: This is an introduction to those districts/teachers that are looking for a new and innovative way to teach math. Math Expressions is a widely used math program within the state. If you are curious what all the talk is about, come see for yourself.

Pamela Richards, Leadership and Learning Center, Rogers, MN
pamela.richards@hmhco.com

104
Kern-Boehr (50)
Grades PK-6

Number Talks...Changing the Culture of Math
Come see a powerful and engaging instructional practice to help students enhance their mental computation strategies, and become proficient in carefully communicating their thinking and critiquing the reasoning of others.

Nina Overholser, Milwaukee Sign Language School, Milwaukee, WI
overhonk@milwaukee.k12.wi.us
Michelle Douglas-Meyer, Milwaukee Sign Language School, Milwaukee, WI

105
RWI-Crystal (64)
Grades PK-12

Hit the Ground Running: My First Year of Teaching
Come hear Anita Harrison, high school math co-teacher at Vincent High school discuss strategies to make your first year of teaching run smoothly. Topics that will be covered: getting parents on your side, lesson planning, classroom management, PI-34, co-teaching, differentiation, becoming a life-long learner, and graduate school. Anita Harrison holds six teaching certifications and she is an IHE for Cardinal Stritch University.

Anita Harrison, Vincent High School, Milwaukee, WI
harrisonar@reagan.com

106
Kern-Brayton Case A (60)
Grades PK-16

National Board Certification...Professional Development that Matters
National Board Certification is a rigorous and worthwhile professional development program that focuses on having an impact on student learning. This session will discuss requirements and incentives of the process.

Stacy Shrode, Kimberly High School, Kimberly, WI
sshrode@kimberly.k12.wi.us
Kelly Jansen, Kimberly High School, Kimberly, WI
Jodi King, JR Gerritts Middle School, Kimberly, WI
107
Bauer-Morehouse B (50)
Grades 2-3

Relational Thinking Across the Grades
A child’s understanding of the equal sign is a great predictor of how they will achieve in higher level mathematics, especially algebra. Engage in activities that will teach students to not only understand what the equal sign truly means, but how to look at equations and expression relationally.

Michelle Painter, Wilson Elementary School, Mequon, WI
mpainter@mtsd.k12.wi.us
Alyssa Murphy, Wilson Elementary School, Mequon, WI
Jodi Brekke, Wilson Elementary School, Mequon, WI

108
Bauer-Lightbody (32)
Grades 2-6

3-5 Students as Problem Solvers
This session will explore problem solving tasks across several CCSSM content domains including Number Operations-Fractions, Operations & Algebraic Thinking, Measurement & Data and Geometry. In addition, participants will focus on how the CCSSM practice standards are embedded in each task. Through student work samples (pencil/paper and podcasts) participants will discuss a variety of student strategies and difficulties as well as explore ways to differentiate each task to support student growth.

Jennifer Kosiak, UW-La Crosse, La Crosse, WI
jkosiak@uwla.edu
Jenni McCool, UW-La Crosse, La Crosse, WI
Kim Markworth, Western Washington University, Bellingham, WA

109
Kern-Brown (32)
Grades 2-6

Using Tape Diagrams to Grow Conceptual Understanding and Math Practices in Students
What strategies and scaffolds can we use to build the Math Practices and conceptual understanding for our students? Tape diagrams provide a vital link for students between concrete and abstract representations, promote problem-solving, and build conceptual understanding. Connections will be made to Principals to Actions: Build Procedural Fluency from Conceptual Understanding and Use and Connect Mathematical Representations.

Elizabeth Cutter, Edgerton Elementary, Hales Corners, WI
ecutter@whitnall.com
Melissa Hedges, Mathematics Education Consultant, Milwaukee, WI

110
Bauer-Beaty (50)
Grades 4-12

Developing a Culture of Learning and Flourishing
Brad Kahrs, presenter at the National Mentoring Institute and lifelong math educator, will provide some powerful ideas relative to building a culture of learning both in the classroom and in schools. The session is intended to inspire teachers and school leaders relative to the value of teaming and community in the teaching profession. Educators who work with novice teachers will find this session particularly helpful.

Brad Kahrs, UW-Stevens Point, Stevens Point, WI
bkahrs@uwsp.edu

111
Kern-Hanson (50)
Grades 6-8

The First Five Minutes: Get Kids in the Door and into Math!
Get kids started out thinking about math, engaging in mathematical discussions, problem solving and collaborating from the moment they enter your room! Use seat sorters and clues to create groups, review concepts, and get kids thinking from the first bell! We will dig into some already created examples, build our own, and share together. You will walk out with materials you can use in class right away.

Kristina Whiting, Madison Metropolitan School District, McFarland, WI
kwhiting@madison.k12.wi.us

112
Bauer-Boddie (32)
Grades 6-8

Nifty Tools and Assignments
Multiple presenters present a Computer Science Tool or Assignment that will be of interest to other instructors. These assignments do NOT need to be large or complex. They could address a problem of interest to many courses, and their small focus makes it easier for other CS teachers to adopt them for their course.

Mark Hall, UW-Marathon County, Wausau, WI
mark.hall@uwst.edu
Lori Hunt, Middleton-Cross Plains School District, Middleton, WI
Dean Johnson, Fort Atkinson High School, Fort Atkinson, WI
8:00-9:00 AM
Thursday, May 7, 2015

8:00 - 9:00 a.m.  60 Minute Sectionals

113
RWI-McGarvey (24)
Grades 6-12

Connecting the Math Practice Standards to Literacy in the Math Classroom
Learn how one district is meeting the district literacy goals in the math classroom and focusing on the Standards for Mathematical Practice by measuring student growth and targeting instruction in these key areas.

Laura Boriscek, River Bluff Middle School, Stoughton, WI
laura.borsecnik@stoughton.k12.wi.us
Kris Holzhuter, Stoughton High School, Stoughton, WI

114
RWI-Veranda A (48)
Grades 6-12

Formative Assessment And Feedback: Informing Teachers, Informing Students
We will look at the teacher use of different levels of questioning for feedback within a lesson. Using sample problems, we will create meaningful questions that will take the problems to a deeper level allowing teachers to evaluate and adapt their lesson to the needs of their students.

Melissa Thomley, Instructional Math Coach, Verona, WI

115
RWI-Veranda C (48)
Grades 6-12

Purposefully Analyzing Student Work
In this session, we will review actual student work and brainstorm how it informs classroom instruction. We will also identify common procedural and conceptual “hiccups” and how to refine instruction to avoid them.

Brad Berlage, Berlage Mentoring Services, Chicago, IL
bberlage@yahoo.com
Annette Roskam, University of Delaware, Newark, DE

116
Bauer-Morehouse A (50)
Grades 6-16

A Parametric Alphabet Activity
Parametric equations are ideal for describing motion. I will take participants through my opening activity where students play the role of a CNC (computer numerical control) router to create letters. My goal is to get students to see 2D-motion for its individual components.

Mike Zittlow, Southern Door High School, Brussels, WI
mzittlow@southerndoor.k12.wi.us

117
Kern-Cary (32)
Grades 9-12

Incorporating Math and CTE from the Ground Up
With the help of a 4-year grant, 3 districts worked in conjunction with North Central Technical College to develop Machine Tool Mathematics. A hands-on approach to meet the needs of students while engaging students in the high-level math needed for the world of Manufacturing. (It is MUCH more rigorous than you think).

See the layout, the product, and the problems.

Mark Schommer, DC Everest School District, Weston, WI
mschommer@dce.k12.wi.us

118
Kern-Johnson (50)
Grades 9-12

Early Math Placement Tool (EMPT): Preparing Students for College Level Math
The EMPT is a free program that assists students in planning and preparing the expectations of college-level mathematics.

Mark Schroeder, UW-Madison, Madison, WI
mjschroeder@wisc.edu
James Wollack, UW Center for Placement Testing, Madison, WI

8:00 - 9:00 a.m.  Keynote Speaker

119
Lakeview (300)
Grades 9-12

It’s Time to Improve Math Instruction
Marilyn Burns is one of today’s most respected mathematic educators. When Marilyn founded Math Solutions Professional Development, it was with the goal of improving math instruction. Join this session to get a deeper understanding of how transforming your mathematical instruction can lead to higher test scores, as well as foster an environment in which teachers are more engaged and students are more excited about learning math. Learn about additional resources to build secondary student math competency as we share Math 180 and Do The Math Now programs. Ms. Trow's keynote is made possible through the generous support of Scholastic Education, Math Solutions.

Marilyn Trow, Scholastic Education, San Francisco, CA
120
RWI-Mahaney (40)
Grades 9-16

Looking at the 2014 AP Statistics Test
This session will focus on the questions and rubrics used to grade 2014 AP Statistics exam. Participants will have the opportunity to talk with AP Readers about common misconceptions and errors made on the exam.

Jason Dahl, Oconomowoc High School, Oconomowoc, WI
dahlj@oasd.org
Bill Fehrenbach, Wisconsin Rapids Lincoln High School, Wisconsin Rapids, WI
Mike Hendricks, Kewaskum High School, Kewaskum, WI
Todd Brahm, East High School, West Bend, WI

122
Bauer-Lightbody (32)
Grades PK-3

Eliciting Algebraic Thinking in Young Learners
Wondering how you’ll move your young students toward algebra readiness? Uncover the algebraic concepts embedded in the Operations and Algebraic Thinking domain. We will explore the early algebraic concepts addressed in the CCSSM and develop a repertoire of activities to support conceptual understanding and procedural fluency. Come and discover all the algebra that’s been right under your nose!

Caitlin Duncan, Math Learning Center, Milton, WI
duncanm@milton.k12.wi.us

123
RWI-Crystal (64)
Grades PK-6

Connecting Math to Visual Models
Objectives: To understand how connecting math to visual models and strategies will increase students’ conceptual understanding with an emphasis on ten frames, number lines, tape diagrams, arrays, and area models. Participants will understand how these visual models move students toward mental math, solve real world problems using visual models, and the opportunity to collaborate with other participants to discuss to use and promote visual thinking in the classroom.

Nancy Burmeister, Rose Glen Elementary School, Waukesha, WI
nburmeister@waukesha.k12.wi.us
Tanya L. Moore, Rose Glen Elementary School, Waukesha, WI
Jennifer Balzer, Rose Glen Elementary School, Waukesha, WI

124
Kern-Stansbury (32)
Grades PK-6

Increase the Mathematical Proficiency of the PARENTS of Your Students!
Come to this session to learn how to get parents on your side in relation to CCSSM. I will share information with you regarding the Parent Night I host at the beginning of the year and the Math Night I host in the spring. Both events have made a huge impact on the support I receive from parents! You will participate in some of the activities that I use at the Math Night in the spring. I teach fifth grade, but both events can be adapted to any grade level.

Michelle Butturini, Reeds Prairie Elementary/Middle School, Reedsprai, WI
butterin@reedsville.k12.wi.us
**9:30-11:00 AM  
Thursday, May 7, 2015**

### 9:30 - 11:00 a.m.  90 Minute Workshops

**125**  
Kern-Cary (32)  
Grades 2-6

**Whole-y Fractions!!!!**  
This presentation will provide an in-depth analysis of the progressions of the Common Core Fractions Standards for grades 3-5. The standards will be more clearly defined, and the intended instructional methods for these standards will be shared. This session will include hands-on activities that you will immediately be able to take back and use in your classrooms.

Andy Smith, Eastview Elementary School, Lake Geneva, WI  
andy.smith@badgerk12.wi.us

Ben Rindo Star, Center Elementary School, Lake Geneva, WI

**126**  
Bauer-Ladue (24)  
Grades 4-6

**Effective Questioning and Technology Tools to Improve Instruction**  
It’s all about asking the right questions and letting students talk. This session will describe a successful professional development approach combing coaching with technology tools to support teachers in facilitating effective mathematical discussions. Techniques and materials that improve the frequency and quality discussions will be provided.

Lauri Susi, Conceptua Math, Petaluma, CA  
lusi@conceptuamath.com

**127**  
Kern-Brown (32)  
Grades 4-6

**Math in a Box, for Upper Elementary Students: Engaging and Expanding Student Problem-Solving Through Box Design**  
This session will show you how to create an ongoing and exciting box project to help students with visual-spatial skills, problem-solving and geometric reasoning through creative design of boxes from flat “nets.”

Peter Wilson, University Lake School, Hartland, WI  
peter.wilson@universitylake.org

**128**  
Kern-Brayton Case A (60)  
Grades 4-8

**Make a Box...Learn Geometry**  
Transform a greeting card into a box for delivering a better understanding of the relationships among perimeter, area and volume.

Nicholas Restivo, MOEMS, Bellmore, NY  
nrestivo@moems.org

**129**  
Kern-Hanson (50)  
Grades 6-8

**Judo Math: Relationship Based Learning**  
In martial arts, students get to learn at their own pace. So why don’t we teach math that way? With Judo Math you can! Students work through a series of belts to achieve mastery in math at their own pace. By explaining and collaborating, students gain a deeper understanding as they work with each other to become a black belt. Learn how to create this positive culture in your class. Participants will earn their own belts through activities to experience how the students feel. They’ll also get step-by-step instructions in the form of a teacher’s guide. See how relationship based learning can revolutionize your classroom with Judo Math!

Dan Thoene, Judo Math, San Diego, CA  
dan@judomath.com

**130**  
Bauer-Boddie (32)  
Grades 6-12

**Exploring Computer Science with Arduino**  
Inexpensive, flexible embedded platforms like the Arduino and Raspberry Pi offer a dazzling array of instructional possibilities. This hands-on session will walk through a set of tools and curriculum modules designed for around the Arduino board for introductory computing courses.

Dennis Brylow, Marquette University, Milwaukee, WI

**131**  
RWI-McGarvey (24)  
Grades 6-12

**Getting Students Talking and Keeping Them Talking**  
Students like to talk in class, but how can we provide opportunities for them to engage in talking about the mathematics? In this session participants will engage in a
lesson that provides examples of classroom strategies designed to get students talking. We will also explore ideas that will help build powerful discourse in your math classroom. Classroom video will be used to reflect on and share our efforts from this school year.

Mary Mooney, Milwaukee Public Schools, Milwaukee, WI
mooneyme@milwaukee.k12.wi.us

Cynthia Schoonover, Washington High School, Milwaukee, WI

132
RWI-Veranda A (48)
Grades 6-12

Active Learning Academy
Come participate in activities that will engage all of your students. Hands on box and whiskers, amazing race, get it together, line it up and more!

Shellie Kamminga, Marengo Community High School, Marengo, IL
kammingas@mchs154.org

Judy Rubel, Marengo Community High School, Marengo, IL

133
RWI-Veranda C (48)
Grades 6-12

Measuring Mathematical Proficiency through Systematic Assessment
Learn how we classified integer operation problems to identify which problem types students have mastered and subsequently target lingering misconceptions. Help us consider how to extend this approach to other mathematical topics.

Annette Roskam, University of Delaware/New Castle County Vocational Technological School District, Newark, DE
annette.m.roskam@gmail.com

134
Kern-Boehr (50)
Grades 7-12

Supporting Algebraic Thinking for the Struggling Learners in Grades 7-10
The reasoning about expressions and equations called for in the Common Core State Standards is inherently connected to the ability to “look for and make use of structure” as described in the mathematical practice standards. But what does that mean for our struggling learners? In this session participants will explore tasks that support these learners so that they can understand what the structure of different but equivalent expressions can reveal about the patterns of growth they represent. Low floor high ceiling problems that require students to build context from expressions and write expressions from context will be shared.

Michelle Parks, CESA 10, Chippewa Falls, WI

9:30-11:00 AM • 9:30-10:30 AM
Thursday, May 7, 2015

Fact Fluency for Understanding: Going Beyond Drill Through Algebraic and Operational Activities
Early number development and algebraic reasoning are the foundation for operational work. This workshop will dig into the K-3 OA Common Core Standards that build toward fact and computational fluencies. Participants will analyze and practice model activities around high leverage concepts in number development and algebraic understanding.

Kerry Motoviloff, Madison Metropolitan School District, Madison, WI
kmotoviloff@madison.k12.wi.us

136
Bauer-Morehouse A (50)
Grades 2-8

Strengthen Your Core-One Activity at a Time
CCSS-M build new understanding onto foundations built in previous years. What happens when that foundation is not there? This session will have engaging tasks, games, and stations designed to help students reinforce that foundation and strengthen their “core.”

Jane Armstrong-Lewis, Greenfield Middle School, Greenfield, WI
jarmstrong@greenfield.k12.wi.us

Danielle Pierro, Greenfield Middle School, Greenfield School District, Greenfield, WI

137
Bauer-Beaty (50)
Grades 6-16

Impacting Mathematical Proficiency in a One-to-One Classroom
Teaching in a One-to-One environment is both daunting and rewarding. Student learning can be enhanced yet there is a risk of the technology becoming a distractor. Learn tips and tricks for teaching in a team based one-to-one classroom. From setting up your classroom, to infusing the Mathematical Practices into your lesson

John Hayes, Northland Pines High School, Eagle River, WI
jhayes@npsd.k12.wi.us
9:30-10:30 AM • 9:30-11:00 AM • 11:30-12:30 PM

Thursday, May 7, 2015

9:30 - 10:30 a.m.  60 Minute Sectionals

138
Kern-Johnson (50)
Grades 9-12

Learning to Ask Questions that Engage Students and Deepen Understanding
We will discuss what we are learning about engaging students in mathematical thinking. Student and teacher exchanges will be analyzed in terms of engaging students in the CCSS Mathematical Practices and other habits of mind.

Beth Ritsema, Mathematics Education Consultant, Caledonia, MI
beth.ritsema@gmail.com
Paul A. Carroll, Paire du Chien High School, Paire du Chien, WI

9:30 - 10:30 a.m.  Keynote Speaker

139
Lakeview (300)
Grades PK-12 Keynote

Turning Your Instruction and Assessment Vision (TPOV) into Action!
With the increasing pressure for student demonstration of college and career readiness skills k-12, how can you create a sustainable process of instruction and assessment “intelligence” development throughout your school organization? This motivational and engaging session is based in part on the Ten High Leverage Team Actions of the PLC Teaching – Assessing – Learning cycle model from author, and national mathematics education thought leader, Dr. Timothy D. Kanold. He explores how your grade level or course-based collaborative teams, school site leaders, and district leaders can create and implement a high quality “knock your socks off” instruction and assessment Teachable Point of View (TPOV) that prepares all students for the deeper learning expectations of this decade. Dr. Kanold highlights critical unit-by-unit collaborative team behaviors essential to effective and successful measurement of student learning. This keynote session is sponsored by Houghton Mifflin Harcourt.

Timothy Kanold, Mathematics Education Consultant, Chicago, IL
tkanold@d125.org

9:30 - 11:00 a.m.  Keynote Speaker

140
Bauer-Morehouse C (100)
Grades K-5 Keynote

Using Multiple Representations to Build Conceptual Understandings of Fractions
The purposeful use of concrete, pictorial, verbal, and symbolic representations is vital to students building conceptual understandings of fractional relationships. Join us in this interactive session as we examine the importance of understanding the meaning of the operations, effectively translating symbols using conceptual language, drawing good pictures, and connecting to symbolic representations.

Sandy Atkins, Creating AHAs, St. Petersburg, FL

Visit the NCTM Bookstore, located in the Kraft Centre Lobby for books and information on national membership.

9:30 - 11:00 a.m.  90 Minute Workshops

141
RWI-Mahaney (40)
Grades 4-12

Don’t Slow Me Down with that Calculator (Mental Math Methods)
Learn to calculate mentally without any need for paper or pencil except for jotting down the answer as we search for numerous squaring and multiplication shortcut methods along with fractional operations.

Cliff Petrak, Brother Rice High School (Emeritus), Chicago, IL
cpetrak1@hotmail.com

11:30 a.m. - 12:30 p.m.  60 Minute Sectionals

142
Bauer-Lightbody (32)
Grades PK-3 Exhibitor

LEGO More to Math
There is More to Math than Facts . . . like Problem Solving
In this session, attendees will discover how LEGO® Education MoreToMath can help students in Grades 1 and 2 bridge the gap between learning core math facts and applying them in real-life scenarios. Built on the latest standards and designed to develop students’ problem-solving abilities while enhancing their vocabulary, reading, thinking, speaking, and listening skills in relation to math topics, MoreToMath works by connecting student enjoyment with success, resulting in learners who are engaged, confident, and excited about math. During this hands-on workshop, participants will use a unique set of LEGO Education bricks and curriculum to model solutions for solving word problems, understanding number operations and algebraic
thinking, measuring and representing data, and developing competencies within eight mathematical practices.

Kathy Grotta, LEGO Education, Savage, MN
kathy.grotta@lego.com

143
Kern-Brayton Case A (60)
Grades PK-3

Going Beyond Fast Facts: A Balanced Approach to Assessing Mathematical Fluency
Participants will investigate the limitations of timed tests, and explore formative assessments that can give teachers in grades 1 and 2 information about the key aspects of mathematical fluency: efficiency, accuracy, and flexibility.

Kristine Gettelman, Ninety-Fifth Street School, Milwaukee, WI
gettelkx@milwaukee.k12.wi.us
Danielle Palm, Samuel Clemens Elementary School, Milwaukee, WI

144
Kern-Johnson (50)
Grades 2-6

Taking Math Expressions to the Next Level
If you are waiting for quick quizzes to see where your students are at, you are missing out on a chance to help students after every lesson. Participants will walk through the process the Mishicot fourth grade team has taken to improve formative assessment of Math Expressions. They will have a chance to look at I can statements, exit tickets, checking for mastery, preview of test and student and teacher unit test analysis. In addition, participants will look at classroom and individual goal setting can help improve student outcomes. By knowing where your students are at after each lesson, you are better able to help them succeed sooner.

Ryan Kamien, O.H. Schultz Elementary School, Francis Creek, WI
rkamien@mishicot.k12.wi.us

145
RWI-Veranda C (48)
Grades 2-6

Fraction Kit: Helping Students Understand Fractions
Participants will use a fraction kit to play a game, talk about vocabulary to use when creating word problems, and then spend time creating their own word problems and working them out.

Heidi Eisenreich, University of Central Florida, Orlando, FL
heisenreich@knights.ucf.edu
Bhesh Mainali, UW-Superior, Superior, WI

146
Bauer-Morehouse A (50)
Grades 4-6

Multi-Digit Multiplication and Division: A Workout that Promotes Flexibility
Knowing basic facts is only part of the story. Successful students demonstrate conceptual understanding of multi-digit multiplication and division by using strategies flexibly. We will explore ways to foster this flexible thinking in the math classroom where as teachers we have a wide range of math knowledge.

Christina Miller, US Math Recovery® Council, Apple Valley, MN
christina@mathrecovery.org

147
Bauer-Morehouse B (50)
Grades 4-8 Exhibitor

Creative Problem Solving Every Day
When is the last time your students REALLY solved problems? Facilitate your students in sharing, discussing, and listening to one another while solving challenging problems.

Nicholas Restivo, MOEMS, Bellmore, NY
nrestivo@moems.org

148
Kern-Stansbury (32)
Grades 6-8

Making Math Visual
This session focuses on the connection between the concrete models and abstract concepts in middle school mathematics. We will focus on how to get students to see the connections seen between: tables, tape diagrams, double number lines, verbal descriptions, graphs, and equations for linear relationships. Creating these connections allows for students to develop a better understanding of proportional and non-proportional linear relationships. We will show example tasks with student work of how we apply it in our own classrooms.

Caitlin Carpenter, Holmen Middle School, Holmen, WI
Tara Eggerichs, Holmen Middle School, Holmen, WI

Make sure to fit at least one keynote session into your schedule.
11:30-12:30 PM
Thursday, May 7, 2015

11:30 a.m. - 12:30 p.m.  60 Minute Sectionals

149
Bauer-Boddie (32)
Grades 6-12

Engaging Geometry Students through Application Projects
We will be presenting differentiated and ready-to-use Geometry projects. Topics include constructions (by hand and by Geometer’s Sketchpad), Euler Line, Trigonometry (using a clinometer), and Geometric Probability. Most of the Mathematical Practice Standards are used when students are completing these projects.

Elizabeth Masslich, Cedarburg High School, Cedarburg, WI
emasslich@cedarburg.k12.wi.us
Nicole Donahue, Cedarburg High School, Cedarburg, WI

150
Kern-Boehr (50)
Grades 6-12

Building Up Your Team as a Teacher
Who are the key players to encourage you as a life longer learner in math education? Administrators, other math teachers, coaches, specialists, interventionalists... are just a few of the people you want on your team as a teacher. We will look at ways you can seek out the guidance of those in your building to help you grow professionally. This session will include a discussion of different coaching models, practice with analyzing student work, talking about effective professional learning communities and more. We will share the impacts on student achievement when supporting teachers with math coaches in two different districts. We hope you come away with some next steps for yourself or your school as you work to improve your students mathematical proficiency through building up your own teaching team.

Tracy Frank, Sun Prairie High School, Sun Prairie, WI
jtracyfrank@me.com
Cyndie Lowe, Menasha Joint School District, Menasha, WI

May 4-6, 2016 | SAVE THE DATE

Make plans to attend the 48th WMC Annual Conference

Mathematics in action

Green Lake Conference Center, Green Lake, WI | www.wismath.org
**Italian and American High School International Math Collaboration**

My students come before school and Italian students from IIS G. Vallauri stay after school to do math collaboration where we have our students on both sides show how they solve different math problems using SMART Boards, Smart Bridgit software, and webcams.

Chris Collins, Monticello High School, Monticello, WI
collich@monticello.k12.wi.us

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**Hands On Activities for Middle and High School Students**

We will explore hands-on activities that address the Common Core standards of Algebra, Geometry, Functions, Numbers and Quantity, and Probability/Statistics. These activities would be appropriate for middle/high school students. They were used as a part of past teacher workshops.

Timothy Deis, UW-Platteville, Platteville, WI
Jodean Grunow, UW-Platteville, Platteville, WI

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**Geometry & Building Trades: A Blended Approach**

Come check out the approach taken by a tech ed and math teacher to create a co-taught class in which students learn both Geometry and Carpentry skills. Participants will get a chance to see various projects used throughout the course.

Steve Olson, Oconomowoc High School, Oconomowoc, WI
olsons@oasd.org

Jason Dahl, Oconomowoc High School, Oconomowoc, WI

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**Some Geometric Inequalities**

A well known result in middle school mathematics is that when given a rectangle with a given perimeter, its area is bounded above by the area of the square with the same perimeter. There are three similar results for cuboids and cubes in three dimensions, and even more results in higher dimensions. Some of this will be described in the talk. How far we go will depend on the audience. The basic inequalities used were first found by Newton and by Maclaurin in the late 17th and early 18th centuries.

Richard Askey, Univ. of Wisconsin-Madison, Madison, WI
raaskey@hotmail.com

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**Badger High School - Creating a Learning Environment for All Students**

The Badger High School Math Department’s curriculum aligns to the Integrated CCSSM standards. Students are guided through the standards utilizing pretesting, scaffolding, pacing, cyclical testing, RtI, ALEKS, and Houghton Mifflin Harcourt’s new Integrated Math series for high school. All facets will be explained as to when, how, and why they are used.

Dustin Johnson, Badger High School, Walworth, WI
dustin.johnson@badger.k12.wi.us

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**Get Up and Move!!!**

Learn activities to get your math students up and moving in the classroom! These activities can be used in the traditional classroom or block schedule as individual or collaborative work. Activities can be adapted and used as a warm up or as an extended activity and review. A fun, formative way to assess your students’ understanding.

Kelly Bluell, Lincoln High School, Wisconsin Rapids, WI
kelly.bluell@wrps.net

Melinda Anderson, Lincoln High School, Wisconsin Rapids, WI

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**Improving Math ACT Scores - Small School Aligned-By-Design**

Is college and career readiness a school or district goal? Hear how a teacher integrates non-negotiable skills into his current curriculum and uses ACT standards/ideas in a modified Aligned-by-Design system. Shows ACT results!

Scott Anderson, Juda School, Juda, WI
sa@judaschool.com

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**Introductory Programming with Java and Understanding by Design Approach**

After attending UBD (Understanding by Design) training, I was able to create curriculum for an Introductory Java Programming class that is student centered, engaging and ripe with differentiation! In this session I will outline my course, provide you with examples of formative and summative projects, and discuss the process I went through.

Lori Hunt, Middleton High School, Cross Plains, WI
lhunt@mcpasd.k12.wi.us
What is “Networked” Content and Why Should I Care?
If you printed out digital content, would it be any worse? How about if you disconnected the internet? Dan Meyer says that he applies these two tests to any digital content. In this presentation, we’ll explore the meaning and importance of each of those tests. We’ll then work through a few examples of networked content.

Eli Luberoff, Desmos, San Francisco, CA
Visual Representations to Ramp up Interventions

“...A strategy is most useful to students when it is theirs, built on and connected to concepts and relationships they already own.” (Van de Walle, 2004) Too often mathematics intervention is looked upon as a tutorial session in which teachers can provide extra time and instruction around fact fluency and mathematical approaches. However, it is critical to take into consideration the trajectories that support how students developmentally learn number. In order for students to achieve mathematical proficiency, they need to learn mathematics incrementally, so that concepts are built upon and related to one another in order to support academic growth. These learning progressions give students the opportunity to develop and build upon their understanding over time by making connections from their prior knowledge to more sophisticated approaches. On the way to bridge the gap along the trajectories is through the use of conceptual – pictorial – and abstract model usage. Visual models are exceptional tools to help children envision, build connections, and verbalize number relationships. However, visual models are not limited to that of manipulative or pictorial use, but also techniques that lend to helping students visually make stronger connections with number. Techniques of screening, color-coding and flashing are used to support children’s imagining so that they can better make sense of quantities and advance their thought process compared to their current ways of thinking. This in turn, bridges the gaps without assumptions by establishing more advanced strategies to solve problems mathematically. In this session, you will learn how to move students progressively through developmental levels by providing tasks that encourage these strong mathematical connections, specifically with the use of screening and color-coding.

Dina Mendola, School District of Cudahy, Oak Creek, WI mendolad@cudahtysd.org
Jamie Neary, School District of Cudahy, Cudahy, WI

Is it a Piece of Art or a Solution to a Math Task? Moving Students from Making Beautiful Pictures to Making Mathematical Drawings

Are you finding students working hard to draw a picture to solve a math problem, only to find out you have lovely pieces of art and no mathematics? What are some math drawings that we can use with young children to help them make a math drawing and represent quantities effectively. Connections will be made to Principles to Actions: Use and connect mathematical representations as well as to the OA Progressions. Leave with ideas of representations that can be implemented into classrooms!

Beth Schefelker, School District of South Milwaukee, Milwaukee, WI bschefelker@sdsm.k12.wi.us
Melissa Hedges, Mathematics Education Consultant, Milwaukee, WI

Four Types of Addition Facts That Develop All Others

Participants will do activities that build four types of facts and enhance the number sense relationships students need to be fluent with facts through understanding not memorization. Outcome: Students will think like mathematicians!

Lynn Rule, MathRack, Wheaton, Il teachgoldenrule@comcast.net

Utilizing Technology to Understand Geometric Concepts in the Early Grades

Learn how to leverage technology in the K-5 geometry classroom. Activities presented will connect to the mathematical practices while providing ready-to-go ideas that can be differentiated for attendees’ classrooms.

Crystal Vesperman, UW-La Crosse, La Crosse, WI cvesperman@uwlac.edu
Lori C. Dilworth, Indiana University, Connersville, IN
1:00-2:00 PM
Thursday, May 7, 2015

1:00 - 2:00 p.m.  60 Minute Sectionals

207
Bauer-Beaty (50)
Grades PK-8

Math Intervention: What is It and How Do I Get Started?
You've identified your students in need. Now what? Two math interventionists will give an overview of how to develop math intervention to meet your student needs. Lots of ideas on assessment, developing number sense, basic fact development, computation skills, and problem solving.

Laura Klescewski, Wabeno Elementary School, Wabeno, WI
lklescewski@wabeno.k12.wi.us
Mary Seils, Crandon Schools, Crandon, WI

208
Bauer-Morehouse A (50)
Grades PK-8

The Language of Math in the Bilingual Classroom
Participants will learn and practice specific, differentiated vocabulary strategies that will facilitate comprehension and encourage the use of the academic language of mathematics.

Sheryll Richert, La Causa Charter School, Milwaukee, WI
sheryllr@lacausa.org
Kari Andrews, La Causa Charter School, Milwaukee, WI

209
Kern-Brayton Case A (60)
Grades 2-3

Conceptual Place Value - What Strategies Do Your Students Use?
When teachers connect research to practice, all students can be proficient problem-solvers. Diagnostic assessments and inquiry-based teaching results in conceptual understanding and mental computation strategies for students.

Vicki Breneman, Moorhead Area Public Schools/US Math Recovery®, Moorhead, MN
vicki@mathrecovery.org

210
Kern-Cary (32)
Grades 2-8

Build Students’ Mathematical Muscle with Low Floor High Ceiling Tasks!
Low floor high ceiling tasks are those that allow all students access but also can be extended to challenge all learners.

Experience several of these problems, and see how they lend themselves to the Practice Standards.

Jennifer Metke, Slinger School District, Slinger, WI
jennifer.metke@slingerschools.org
Stephanie Bernander, UW-Oshkosh, Oshkosh, WI

211
RWI-McGarvey (24)
Grades 2-8

Paths to Proficiency-Based Learning
This presentation examines the implementation of Proficiency-Based Learning in an intermediate elementary mathematics classroom. During the session we will provide ways we have found to effectively use tools that can monitor students’ progress, such as progression documents and formative check-ins. We will also discuss effective ways to measure student proficiency using portfolios and summative projects. Academic data shows growth on benchmark assessments. Student engagement is significantly higher and students have notably more buy-in to their work. Student perception surveys were also given to find that students prefer the Proficiency-Based Learning system to their traditional learning classroom by 75%.

William Taage, Hawthorne Elementary School, Waukesha, WI
wtaage@waukesha.k12.wi.us
Faith Lincicum, Waukesha School District, Waukesha, WI

212
Bauer-Morehouse C (100)
Grades 2-12

Supporting and Learning from Your Students’ Reasoning and Sense Making
This session presents teacher moves and instructional tasks that support students as they build personal mathematical knowledge, structures, facts, relations, and practices. Also, we will share strategies for you to assess students’ concept development and misconceptions that can inform your instructional decisions.

Henry Kepner, UW-Milwaukee (Emeritus), Milwaukee, WI

213
RWI-Veranda A (48)
Grades 4-6

Understanding Fraction Multiplication & Division with Visual Models
Investigate several visual tools for modeling and solving problems that involve multiplication and division with fractions. Learn how story problems help students make sense of fraction multiplication and division, and examine students’ responses to such problems.

Martha Ruttle, The Math Learning Center, Portland, OR
marthar@mathlearningcenter.org
214  
Bauer-Boddie (32)  
Grades 4-8  

**Computer Programming for ANY Grade Level**  
Introduce computer programming to your students. Using Alice, a freely shared program, students can quickly create animations while learning programming skills. You and your students will be engaged and successful in minutes!!

**Michael Cullen, Cedarburg High School, Cedarburg, WI**  
mccullen@cedarburg.k12.wi.us

215  
RWI-Mahaney (40)  
Grades 4-12 Exhibitor  

**High Yield Practices for Fostering Productive Struggle and Perseverance**  
This session will focus on ways to nurture and foster productive struggle and effective questioning to elicit mathematical thinking in the classroom.

**Cindy Bryant, LearnBop, New York, NY**  
cindy@learnbop.com

216  
RWI-Veranda C (48)  
Grades 6-8  

**Using Visual Models to Build Ratio and Proportional Reasoning**  
Explore many visual models that help to build students’ understanding of ratios. Strategies that will be covered include tape diagrams, double number lines, and ratio tables.

**Melinda MacLeish, South Milwaukee Middle School, South Milwaukee, WI**  
macleish@sdsm.k12.wi.us  
**Katrina Madden, South Milwaukee Middle School, South Milwaukee, WI**

217  
Kern-Hanson (50)  
Grades K-12 Exhibitor  

**Personalized Learning: Mobile Madness and the Digital Native**  
This session will explore the dramatic increase of mobile devices by students in the K-12 environment while discussing instructional options and best practices for utilizing these tools to deliver personalized learning experiences.

**Shavon Johnson, Pearson Education, Lathrup Village, MI**

218  
Kern-Stansbury (32)  
Grades 6-12  

**Increasing Student Engagement with the Aurasma App**  
Bring your boring review sessions to life with the Aurasma App! Aurasma allows students to scan target images that can be linked to documents, videos files, or web links. Once created, lessons and lesson materials can be shared with colleagues from your school and others! Great for teacher and student led activities. A must have app for the iPad classroom.

**Bill Kujawa, Brookfield East High School, Brookfield, WI**  
kujawab@elmbrookschools.org  
**Heather Minton, Brookfield East High School, Brookfield, WI**

219  
Kern-Boehr (50)  
Grades 9-16  

**The Transnational Education Frontier: Global Trends in Mathematics Education**  
Transnational education programs provide unprecedented opportunities for high school and college students by allowing students to pursue educational programs in other countries without physically relocating. This session presents a spectrum of opportunities available in mathematics and related, math-intensive programs of study.

**Betsy Bannier, Lake Region State College, Franklin, WI**  
betsy.bannier@lrsc.edu
1:00-2:00 PM • 2:30-4:00 PM  
Thursday, May 7, 2015

**1:00 -2:00 p.m.  60 Minute Sectionals**

220  
Kern-Brown (32)  
Grades 9-16  

What is the Probability Your Students Are Proficient in Statistics?  
Come explore the HS Probability and Stats CC Standards through engaging tasks that bring data and chance to life! The Mathematical Practices are infused in these tasks to help students develop proficiency and conceptual understanding of probability and statistics HS topics.

Sharon Peterson, Rice Lake High School, Rice Lake, WI  
Lynda Wyse, Rice Lake High School, Rice Lake, WI  
Melanie Griesbach, North High School, Eau Claire, WI  
Ashlee LeGear, North High School, Eau Claire, WI  
Sherrie Serros, UW-Eau Claire, Eau Claire, WI

221  
Kern-Johnson (50)  
Grades 9-16  

Top Ten List: What Should Incoming University Students Know?  
What do these university mathematics faculty think are the most important abilities for incoming students to have? Come, listen and discuss.

Julia McDonald, UW-Platteville, Platteville, WI  
Tim Deis, UW-Platteville, Platteville, WI  
Jason Thrun, UW-Platteville, Platteville, WI

**1:00 -2:00 p.m.  Keynote Speaker**

222  
Lakeview (300)  
Grades K-12 Keynote  

The Mindset Revolution: Teaching Mathematics for a Growth Mindset  
In recent years scientific studies have demonstrated that student and teacher ‘mindsets’ have a profound impact on learning. Students with a ‘growth mindset’ (Dweck, 2006) who believe that intelligence and ‘smartness’ can be learned and that the brain can grow from exercise learn more effectively, displaying a desire for challenge and showing resilience in the face of failure. Such behaviors encourage greater math persistence, engagement and high achievement. Mathematics teachers play a critical role in the development of mindsets and this session will review the ways to teach for a growth mindset, including attention to classroom norms, math tasks, questions and assessment. In this keynote session Jo will share recent and important research on the brain and mathematics learning that has profound implications for students’ mathematics achievement.

Jo Boaler, Stanford University, Stanford, CA

**2:30 - 4:00 p.m.  90 Minute Workshops**

223  
Kern-Boehr (50)  
Grades PK-2  

What Does Rigor Mean in a K-2 Classroom?  
“Yes, my students know how to do that!” Do they really? What happens if you change the setting? Are you looking for ways to increase the rigor to meet student needs? Come observe, discuss, and evaluate a number of student experiences and see how well you can determine a student’s depth of knowledge at the K-2 level.

MaryAnn Modrak, CESA 10, Chippewa Falls, WI  
mmmodrak@cesa10.k12.wi.us

224  
Kern-Stansbury (32)  
Grades PK-3 Exhibitor  

Designing Differentiation that Moves  
Differentiated instruction does not happen by accident. Differentiation in the classroom is all about understanding that we are dealing with a group of diverse individuals and adapting our teaching to ensure that all of them have access to learn. How do we as teachers teach the whole class mathematics with

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Please make sure to put your cell phone on “airplane mode” and turn off your cell phone or pager during Conference events.
the individual student at mind? This session examines how to find out what children know and need and then how to design instruction that advances all students’ mathematical thinking and success. The PK-3 session focus will be on addition and subtraction.

Jessica Finley, US Math Recovery Council, Spokane, WA

225
Kern-Cary (32)
Grades PK-6

Increase the Mathematical Proficiency of Your Students Using Problem Solving
This session will focus on how to use Cognitively Guided Instruction (CGI) problem types and stages of development to meet your students where they are at. Having an awareness and understanding of the problem types and stages of development will guide you as you provide differentiation and appropriate interventions for your students. You will participate in activities that will help you to better understand the problem types and stages of development.

Connie Malueg, Marion Elementary School, Marion, WI
connie.malueg@marion.k12.wi.us
Michelle Butturini, Reedsville School District, Reedsville, WI

226
Bauer-Lightbody (32)
Grades PK-12

Developing the Principles to Actions Mathematics Teaching Practices
NCTM’s Principles to Actions introduces 8 high-leverage Mathematics Teaching Practices. This session will present materials to support professional developers in engaging teachers with the mathematics teaching practices.

Mike Steele, UW-Milwaukee, Milwaukee, WI
steelem@uwm.edu

227
RWI-Crystal (64)
Grades PK-12

Rtl Roundtable Networking
This session will give participants an opportunity to meet other math educators from around the state. This interactive session will allow participants the opportunity to discuss mathematics within a Culturally Responsive Multi-level System of Support.

Sara Summ, Wisconsin RtI Center, Chippewa Falls, WI
summs@wisconsinrticenter.org
Heidi Erstad, Wisconsin RtI Center, Chippewa Falls, WI

228
Bauer-Morehouse B (50)
Grades 2-6

Mental Math Means Mastering Number Facts and Much More
Mental math is a goal of computation. Students must be fluent with number facts and more. This session demonstrates how to use methods that enable students to achieve this goal. It begins with strategies to master number facts.

Calvin Irons, Mathematics Education Consultant, Kelvin Grove, Queensland Australia
mathmates@iinet.net.au

229
Kern-Brayton Case A (60)
Grades 2-8

Common Core IS Cognitively Guided Instruction: Scaffolding Instruction for Students in Urban Classrooms to Bridge Proficiency in the Common Core State Standards in Mathematics
The rigor of the CCSS-M has amped us all up. At Frank Allis Elementary in Madison, WI, we are using Common Core Learning Experiences with all students, while at the same time targeting instruction to meet students where they are in their mathematical development. In this session we will share classroom practices from 2nd through 5th grade where teachers differentiate for a broad range of students, using Cognitively Guided Instruction and building on the Mathematical Practices.

Sara Cutler, Allis Elementary School, Madison, WI
scutler@madison.k12.wis.us
Kirsten Johnson, Allis Elementary School, Madison, WI
Brieanne Labno, Allis Elementary School, Madison, WI
Christel Preuss, Allis Elementary School, Madison, WI
Steven Blue, Allis Elementary School, Madison, WI
Kathy Ponzer, Allis Elementary School, Madison, WI

230
RWI-McGarvey (24)
Grades 4-6

Finding Great Elementary Area Problems
Non-routine problems are an effective tool to teach area at the elementary level. Math contests can provide appropriate problem-solving gems. Work through a dozen area contest classics. Leave with these and over 50 additional problems.

Dennis Mulhearn, MOEMS Math Olympiads ; Valley Stream South High School (Emeritus), Merrick, NY
li_mathguy@yahoo.com
2:30-4:00 PM
Thursday, May 7, 2015

2:30 - 4:00 p.m.  90 Minute Workshops

231  
Kern-Brown (32)  
Grades 4-8  

When Do I Have Time to Make Geometry Work Stations?  
Due to the outstanding response to last year’s math work stations session, this one will be devoted to geometry. We will create 10 to 15 minute work stations based on CCSSM. Participants will leave with materials and instructions for over 15 work stations.

Annette Nelson, Northland College, Ashland, WI  
anelson@northland.edu

232  
RWI-Veranda A (48)  
Grades 6-12  

3 Apps To Completely Change the Way You Assess In Your Classroom  
Are you looking for new ways to differentiate how you assess your students on a daily basis? In this session, you will learn how the use of Socrative, GeoGebra, and Explain Everything iPad apps that can totally revitalize assessment in ways ranging from quick, instantaneous checks to deeper, summative projects.

Jennifer Toth, Brookfield East High School, Brookfield, WI  
tothj@elmbrookschools.org  
Hannah Guth, Brookfield East High School, Brookfield, WI

233  
RWI-Veranda C (48)  
Grades 6-12  

What Kind of Lessons Focus on Mathematical Practice 8?  
Is looking for and expressing regularity in repeated reasoning just about writing function rules for pattern problems? It can be so much more! Come examine a range of lesson ideas that focus on this Mathematical Practice.

Annette Roskam, University of Delaware/New Castle County Vocational Technological School District, Newark, DE  
anette.m.roskam@gmail.com

234  
Bauer-Bodde (32)  
Grades 6-16  

Learn How to Program Using Alice!  
Alice is an amazing tool that teaches students how to write computer programs. Using a drag-and-drop 3D virtual world environment, students learn the FUNdamentals of programming and logic. Once they start, they just can’t stop! Join us!

Dean Johnson, Fort Atkinson High School, Fort Atkinson, WI  
djohnson@fortschools.org  
Aaron Chamberlain, Fort Atkinson High School, Fort Atkinson, WI

235  
Bauer-Ladue (24)  
Grades 9-12  

Using Geometer’s Sketchpad to Enhance Rigor in All Secondary Math Courses  
Come to a computer lab and enjoy discovery activities that allow students to explore, make conjectures, and prove concepts. The mathematical practices come alive with the use of this dynamic software. It works extremely well with your interactive white board or in a lab setting.

Michael Tamblyn, Whitewater High School, Whitewater, WI  
m Tamblyn@wwusd.org

236  
Bauer-Morehouse A (50)  
Grades 9-12  

Creating Collaborative Cultures - With Students AND With Colleagues  
Working together should not be a burden. Time given to collaboration can lead to growth that would be difficult to achieve alone. Come listen to how two different math departments have grown and changed by giving time and value to collaboration at multiple levels. Learn techniques to take back to your classroom to engage your students in collaboration around math concepts as well as ways to help your math department or curricular team grow as collaborators with a common goal. We will discuss ways that collaboration can increase mathematical proficiency and create a generation of problem solvers who know how to work well in a team.

Anthony Johnson, DeForest Area High School, DeForest, WI  
ajohnson@deforestschools.org  
Lisa Hennessey, Sun Prairie High School, Sun Prairie WI  
Tracy Frank, Sun Prairie Area School District, Sun Prairie, WI

237  
Kern-Brayton Case B (60)  
Grades 9-12  

Investigating Trigonometric Graphs With the Unit Circle  
Join us for a hands-on lesson designed to help students connect the unit circle with the graphs of the trigonometric functions. Starting with a can of soup, a ruler, and a protractor, lead your
students to understanding how seasons change and our weather is connected to wonderful world of SOH CAH TOA!

Bill Kujawa, Brookfield East High School, Oak Creek, WI kujawa@elmbrookschool.org
Tim Owen, Brookfield East High School, Brookfield, WI

238
Bauer-Morehouse C (100)
Grades PK-6

Aligning Math Intervention with the RtI Framework
This presentation provides a look at how the School District of Menomonee Falls created their decision rules and processes for instructing students in tier one and intervening with students in tier two and three. Included will be methods for progress monitoring and communicating with parents.

Aaron White, Riverside Elementary School, Menomonee Falls, WI whitea@sdmfschools.org
Paula Muchler, Riverside Elementary School, Menomonee Falls, WI Rebecca Meyer, Riverside Elementary School, Menomonee Falls, WI Jennifer Block, Riverside Elementary School, Menomonee Falls, WI

2:30 - 3:30 p.m. 60 Minute Sectionals

239
Kern-Johnson (50)
Grades PK-6

Using a Mathematics Continuum in Proficiency Based Reporting
The use of a standards based reporting system does not always ensure that accurate reporting of student progress occurs in all classrooms, especially multi-age ones. This presentation will focus on how the continuum was developed and how to use it to accurately share information with all stakeholders on a child’s level of mathematical proficiency.

Rose Palmer, Waukesha School District, Waukesha, WI rpalmer@waukesha.k12.wi.us
Faith Lincicum, School District of Waukesha, Waukesha, WI

240
Bauer-Beaty (50)
Grades K-12

Administrators - What Do You Need to Know About Teaching and Learning Mathematics?
Learn how administrators can be instructional leaders that support and lead by understanding current mathematics content, instruction, assessment and intervention.

Becky Walker, Appleton Area School District, Appleton, WI

2:30-4:00 PM • 2:30-3:30 PM
Thursday, May 7, 2015

241
Lakeview (300)
Grades K-5 Keynote

Teaching Basic Facts with Fluency in Mind – Grades K-5
Procedural fluency means being able to flexibly, accurately, efficiently and appropriately compute. In this session, we will explore strategies and games that help students learn the basic facts through applying reasoning strategies, along with assessment tools that do a better job than timed tests.

Jennifer Bay-Williams, University of Louisville, Louisville, KY

242
Kraft-Mitchell Dining Room (85)
Grades 2-12

WSMI Fellows Social
You are part of an online mathematics community of instructional leaders, the WSMI (Wisconsin Statewide Mathematics Initiative) Fellows. You worked hard all semester to incorporate high cognitive demand tasks, analyze your students’ work, and make instructional decisions based on student learning. Isn’t it time we all met face to face? We will discuss the next steps for you and your district. This session is open to all WSMI Fellows.

Sara Brown, Brookhill Institute of Mathematics, Waukesha, WI Sara.Brown@brookhill.org
Paige Richards, Brookhill Institute of Mathematics, Waukesha, WI Paige.richards@brookhill.org
Jeff Ziegler, Brookhill Institute of Mathematics, Waukesha, WI Jeff.ziegler@brookhill.org

243
RWI-Mahaney (40)
Grades 4-8

From Research to Reality: Ideas Using High Impact Strategies
Learn about research-based strategies related to assessment and feedback, along with specific ways to incorporate them. The emphasis will be on classroom examples from video clips, student work, and teachers’ experiences.

Pamela Quirk, Lake Denoon Middle School, Muskego, WI pamela.quirk@muskegon.orw.org
Michelle Ervin, Lake Denoon Middle School, Muskego, WI
Mark Sievert, Lake Denoon Middle School, Muskego, WI
Todd Sobczyk, Lake Denoon Middle School, Muskego, WI

244
Kern-Hanson (50)
Grades 6-8

The Solution to “When am I Ever Going to Use this in the Real World?”
Educators and industry partnered together in an innovative approach to showcase real world relevancy of how math is used in the workplace. Videos are now available showing real world middle school math problems at companies.

Ann Franz, Northeast Wisconsin Manufacturing Alliance, Green Bay, WI ann.franz@nwmaedu
Andy Bushmaker, KI Furniture, Green Bay, WI
Meetings & Event Overview

Friday, May 8, 2015

6:15 a.m.
Fourth Annual Pi Run (Meet outside the Kern Lodge parking lot)

7:00–7:45 a.m.
First Timer Orientation (Kraft Centre Mitchell Dining Room)

7:00–9:00 a.m.
Breakfast served in Kraft Centre Dining Room (requires separate ticket purchased from Green Lake Conference Center)

7:00 a.m.–2:00 p.m.
On-site Registration (Kraft Centre Lobby)

8:00 a.m.–1:30 p.m.
Visit the Exhibit hall (Pillsbury)

8:00 a.m.
Sessions Begin

10:00 a.m.
Check out time for Green Lake lodging

11:00 a.m.–1:30 p.m.
Lunch

1:00–2:30 p.m.
WMC Student Teacher Seminar (Kraft Centre Tower Dining Room)
“Measuring Up” Mini Math Olympiad (Kraft Centre Mitchell Dining Room)

4:00 p.m.
Sessions conclude

Fourth Annual Pi Run
6:15 a.m. Meet outside of the Kern Lodge parking lot
Get out your running shoes and participate in the Fourth Annual Pi Run, with proceeds benefitting the Wisconsin Mathematics Education Foundation. The 3.14 kilometer fun run/walk around the Green Lake Conference Center wooded grounds starts and finishes on Hillside Road. You can sign up at the Wisconsin Mathematics Education Foundation exhibit located in the Kraft Centre lobby.

First Timers Welcome/Orientation
7:00-7:45 a.m. Kraft Centre Mitchell Dining Room
Meet new friends and get acquainted with the conference ins and outs. The Membership Committee will provide an overview of the conference program, answer questions and help you select appropriate sessions. Bring your breakfast or just drop in for valuable information to make the most of your first Annual Conference experience. Look for the red, yellow and blue balloons.

WMC Student Teacher Seminar
1:00-2:00 p.m. Kraft Centre Tower Dining Room
Focus on your transition into your first year of teaching when administrators and PK-12 teachers from Wisconsin schools share tips on how to develop a high quality resume and effective interviewing skills. You’ll also get a first-hand glimpse of the professional role of an initial educator.

“Measuring Up? How About a Little Competition?”
1:00-2:30 p.m. Kraft Centre Mitchell Dining Room
Take part in this fun activity for teachers of all grades, with an emphasis on teachers of grades 4 through 8. The Mathematical Olympiads for Elementary & Middle Schools team will run a mini-tournament to get your creative problem solving juices flowing right after lunch!

A note about reading the room locations:
Throughout the book, the first name indicates the building; the name after the dash indicates the room.
When planning your session choices, write down the session number, building and room. Also select a nearby alternative in the event that your first choice is full.

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tr>
<td>6:15 a.m.</td>
<td>Fourth Annual Pi Run (meet outside of the Kern Lodge parking lot)</td>
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<tr>
<td>7:00 a.m.</td>
<td>First Timers Orientation, Breakfast served from 7:00-9:00 a.m.</td>
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<tr>
<td>8:00 a.m.</td>
<td>Exhibit hall opens</td>
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<td>11:00 a.m.</td>
<td>Lunch served until 1:30 p.m.</td>
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<td>12:00 noon</td>
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<td>1:00 p.m.</td>
<td>WMC Student Teacher Seminar (Tower Dining Room)</td>
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<td>“Measuring Up” Mini Math Olympiad (Mitchell Dining Room)</td>
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<td>1:30 p.m.</td>
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<td>4:00 p.m.</td>
<td>Conference closes</td>
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<td>Notes</td>
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# Location | Time | Title
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301 Bauer-Morehouse A | 8:00-9:00 a.m. | Meaningful Geometry in Early Childhood (Grades PK-2)
302 RWI-Crystal | 8:00-9:00 a.m. | Interventions In Action
303 Bauer-LaDue | 8:00-9:00 a.m. | Session 2: Personal Math Trainer - A Digital Practice and Assessment Tool for Mathematicians
304 Kern-Boehr | 8:00-9:00 a.m. | eMAPPS is Born: Math and Parent Partners Goes Virtual
305 Kern-Cary | 8:00-9:00 a.m. | Building a K-12 Program of Study for Computing
322 Kern-Brayton Case B | 9:30-11:00 a.m. | Using Literacy Skills to Measure Mathematical Proficiency
323 Bauer-Morehouse C | 9:30-11:00 a.m. | Precise Language, Correct Vocabulary in Our Math Classrooms
334 Kern-Johnson | 9:30-10:30 a.m. | Think Hybrid: Another Model for RtI
335 Lakeview | 9:30-10:30 a.m. | Leveraging Effective Teaching: Principles to Actions & Professional Learning
336 Bauer-LaDue | 9:30-10:30 a.m. | Becoming a Connected Educator with the #MTBoS
337 Bauer-Morehouse A | 9:30-10:30 a.m. | Building Conceptual Depth: What do We Need to Understand?
343 Bauer-Morehouse A | 11:00 a.m.-12:00 p.m. | Understanding Milestones of Mathematical Developmental
344 Bauer-Morehouse B | 11:00 a.m.-12:30 p.m. | Number Talks: Productive Discourse in Elementary Classroom
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349 Kern-Hanson | 11:30 a.m.-12:30 p.m. | Making Homework Look like its 2015 Instead of 1985 - Take 2
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351 Kern-Brayton Case B | 11:30 a.m.-12:30 p.m. | How Do They Show What They Know?
401 Kraft Courtyard | 12:30-1:00 p.m. | The Power of Parabolas
402 Kern-Brayton Case B | 1:00-2:00 p.m. | Using Number Talks to Deepen "Kid Talks" About Number Sense
403 Bauer-Beaty | 1:00-2:00 p.m. | Understanding Equality - Recognizing Where Students are at with Their Understanding of Equality and Helping them Grow
404 Kern-Hanson | 1:00-2:00 p.m. | Everyday Mathematics 4: Engineered for the Common Core
405 Kern-Brown | 1:00-2:00 p.m. | Information on Graduate Degrees in Mathematics Education
406 Kern-Cary | 1:00-2:00 p.m. | Computer Science Education in Wisconsin & CSTA WI-Dairyland Chapter
407 Kern-Stansbury | 1:00-2:00 p.m. | They Say They're Aligned, But Are They Really? Tools to Evaluate Alignment to the CCSSM
423 Bauer-Morehouse C | 2:30-3:30 p.m. | PK-2 Students as Problem Solvers
424 Bauer-Lightbody | 2:30-3:30 p.m. | Five Easy Steps to a Balanced Math Program
425 Bauer-Beaty | 2:30-3:30 p.m. | Computing for All: Labor Projections, CS K-12 Standards & Computational Thinking
## Friday, May 8, 2015

**Grades 2-3**

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<tr>
<td>301</td>
<td>Bauer-Morehouse A</td>
<td>8:00-9:00 a.m.</td>
<td>Meaningful Geometry in Early Childhood (Grades PK-2)</td>
</tr>
<tr>
<td>302</td>
<td>RWI-Crystal</td>
<td>8:00-9:00 a.m.</td>
<td>Interventions In Action</td>
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<td>Building a K-12 Program of Study for Computing</td>
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<td>306</td>
<td>Kern-Brayton Case B</td>
<td>8:00-9:00 a.m.</td>
<td>Planting Seeds of Change: How to Build a Flexible Mathematics Framework to Meet the Needs of All Students</td>
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<td>The Parallel Journeys of Assessment and Instruction</td>
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<td>CCSS Math: Merging Mathematical Skills with Mathematical Practices</td>
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Friday, May 8, 2015
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<td>Applying the Self-Regulated Strategy Development (SRSD) Model to Math Instruction: Teaching Underachieving Fifth-grade Students</td>
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<td>339</td>
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<td>Inspiring the Next Generation of Mathematicians and Thinkers</td>
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<td>High Quality PD...in Your Pajamas?</td>
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<td>357</td>
<td>RWI-McGarvey</td>
<td>11:30 a.m.-12:30 p.m.</td>
<td>I am Flipped for Math</td>
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<td>You Down with SMP? Yeah, Let's All Be!</td>
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<td>Kraft-Mitchell Dining Room</td>
<td>1:00-2:30 p.m.</td>
<td>Measuring Up? How About a Little Competition?</td>
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<td>8:00-9:00 a.m.</td>
<td>Physical Education Activities that Relate to Middle School Mathematics</td>
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<tr>
<td>314</td>
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<td>Embedding Mathematical Practices Using Study Team Strategies in Daily Lessons</td>
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<td>315</td>
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<tr>
<td>316</td>
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<td>8:00-9:00 a.m.</td>
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<td>317</td>
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<td>322</td>
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<td>9:30-11:00 a.m.</td>
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<td>Precise Language, Correct Vocabulary in Our Math Classrooms</td>
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<td>324</td>
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<td>325</td>
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<td>326</td>
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<td>327</td>
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<td>9:30-11:00 a.m.</td>
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<td>Kern-Johnson</td>
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<td>Think Hybrid: Another Model for RTi</td>
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<td>Leveraging Effective Teaching: Principles to Actions &amp; Professional Learning</td>
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<td>339</td>
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<td>341</td>
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<td>Making Student Thinking Visible through Personalized Learning</td>
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<td>Kern-Cary</td>
<td>9:30-10:30 a.m.</td>
<td>A Secondary Mathematics Story: More Customized, More Rigorous...</td>
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<td>343</td>
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Grades 6-8
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<td>Relating the Unit Circle to the Graphs of Sine and Cosine via Measurement</td>
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<td>Bauer-LaDue</td>
<td>1:00-2:30 p.m.</td>
<td>Khan Me Into Math - Using Khan Academy to Enrich, Support and Extend Learning</td>
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**Save the Date!**

**Mathematical Proficiency for Every Student Conference — Focus on Principles to Actions**

- Nationally recognized keynote speakers
- Focus on the book, *Principles to Actions*
- Opportunities to network with WI educators
- A variety of breakout sessions for all grade bands
- Attend one or both days!

**October 21 & 22, 2015**
8:30 AM-3:30 PM
Radisson Hotel & Conference Center • Green Bay, WI

**December 2 & 3, 2015**
8:30 AM-3:30 PM
Olympia Conference Center • Oconomowoc, WI

262.437.0174  www.wismath.org

More information will be available in June 2015 including the preliminary program and how to register!
8:00-9:00 AM
Friday, May 8, 2015

8:00 - 9:00 a.m.  Keynote Speaker

301
Bauer-Morehouse A (100)
Grades PK-2 Keynote

**Meaningful Geometry in Early Childhood (Grades PK-2)**
Creating opportunities for interacting with geometrical ideas in the early years of school will be the focus of this session. Educators must realize the importance of critical attributes—‘must haves’ for geometrical objects in comparison with other objects and their variety of attributes. The geometry content for young children is developed through experiences with four major aspects—movement in space, location and direction, three-dimensional objects and two-dimensional shapes. Innovative strategies will be presented and shared, including language specific to geometry and critical analysis of resources appropriate for early childhood settings.

**Rosemary Irons, Mathematics Education Consultant, Whiteside, Queensland Australia**

8:00 - 9:00 a.m.  60 Minute Sectionals

302
RWI-Crystal (64)
Grades PK-3

**Interventions In Action**
How do we adjust mathematical instruction so that it supports and extends student learning? What tools and resources do we have to support student’s learning? Take a journey into the world of interventions. This hands on workshop will provide you with the opportunity to experience and create high-level tasks that are ready in a moments notice.

**Nancy Puerzer, Oriole Lane School, Mequon, WI npuerzer@mtsd.k12.wi.us**

**Sharon Kiernan, Mequon-Thiensville School District, Mequon, WI**

**Lisa O’Malley, Mequon-Thiensville School District, Mequon, WI**

Because weather can range from snow and rain to beautiful and sunny, dressing in layers and carrying an umbrella works best.

303
Bauer-LaDue (24)
Grades PK-6

**Session 2: Personal Math Trainer - A Digital Practice and Assessment Tool for Mathematicians**
Session 2: The Personal Math Trainer is a technology based resource providing students with digital math practice, built in support, diagnostic and prescriptive assignments based on student history. Come experience our new digital product to be used to enhance any program you currently use. (PMT is available with Go Math 2015, Go Math 6-8 and HMH AGA and Integrated.)

**Kristin Gaudlin, Houghton Mifflin Harcourt Publishers, Boston, MA**

304
Kern-Boehr (50)
Grades PK-8

**eMAPPSS is Born: Math and Parent Partners Goes Virtual**
The Math and Parent Partners (MAPPS) program has developed online resources for parents and teachers as well as a virtual Minicourse that can be taken as an online class or free through a MOOC. Join the session to obtain online access to common-core aligned math resources to share with families in your school. Also, learn how to start a MAPPS program at your school!

**Andrea Knapp, UW-Stevens Point, Stevens Point, WI andrea.knapp@uwsp.edu**

**Senfeng Liang, UW-Stevens Point, Stevens Point, WI**

305
Kern-Cary (50)
Grades PK-12

**Building a K-12 Program of Study for Computing**
PUMP-CS professional development resources help teachers to adopt free computer science curricula from Code.org, National Science Foundation, and College Board, among others. Bring inquiry-based computing to your district today.

**Joseph Knoch, Washington High School of Information Technology, Milwaukee, WI jknoch@jgknoch.com**

**Dennis Brylow, Marquette University, Milwaukee, WI**
306
Kern-Brayton Case B (60)
Grades 2-3

Planting Seeds of Change: How to Build a Flexible Mathematics Framework to Meet the Needs of All Students
What was once acceptable in math education is no longer appropriate for our students; we must change our instructional frameworks to truly meet the demands of the 21st century learner. Come along as we share ideas for building a flexible framework for instruction that is seeped in differentiation, discourse, and true enrichment while promoting a richer understanding of mathematics for all students.

Sarah Trimner, Mountain Bay Elementary School, Wausau, WI
strimner@dce.k12.wi.us
Mark Schommer, DC Everest School District, Weston, WI

307
RWI-Veranda A (48)
Grades 2-6

Using Discourse to Introduce Triangles, Quadrilaterals, and Other Polygons
Participants will learn how to introduce different types of polygons to facilitate student discourse. Angle cards and shape cards will be used to create, classify, and define polygons.

Heidi Eisenreich, University of Central Florida, Orlando, FL
heisenreich@knights.ucf.edu
Bhesh Mainali, UW-Superior, Superior, WI

308
Bauer-Boddie (32)
Grades 2-8 Exhibitor

Five Easy Steps to a Balanced Math Program
This interactive session-based on the research of Jan Christenson- will introduce participants to four instructional areas to “balance” out textbook and standards-driven teaching: computational strength, number sense, problem solving, and conceptual understanding. These ideas can work in conjunction with any mathematics program. Attendees will learn the key components of each step and short activities that will enhance their understanding of the step.

Pamela Richards, Leadership and Learning Center, Rogers, MN
pamela.richards@hmhco.com

309
Bauer-Morehouse B (100)
Grades 2-8

Literacy Unlocks Challenging Tasks: Problem-Solving Circles in Intervention
The interdisciplinary literacy standards can be challenging to imagine in math, especially for your struggling learners. Learn a process you can use immediately to improve all students’ problem solving abilities & math literacy.

Nicole Hawkins, Greendale School District, Greenfield, WI
nicole.hawkins@greendale.k12.wi.us
Jill Leffler, School District of Greenfield, Greenfield, WI
Samantha Goodger, School District of Greenfield, Greenfield, WI

310
Bauer-Lightbody (32)
Grades 2-12

Exploring Math Tasks and Student Work with the WSMI Fellows
Come find out what a statewide online mathematics community of instructional leaders, the WSMI (Wisconsin Statewide Mathematics Initiative) Fellows, learned about increasing cognitive demand. Join us as participants share their math tasks and student work using NCTM’s book, Principles to Actions as a framework for implementing tasks that promote reasoning and problem solving. WSMI Fellows was developed in collaboration with the Brookhill Institute of Mathematics, Wisconsin Mathematics Council (WMC) and the Department of Public Instruction (DPI).

Jeff Ziegler, Brookhill Institute of Mathematics, Waukesha, WI
Sara Brown, Brookhill Institute of Mathematics, Waukesha, WI
Paige Richards, Brookhill Institute of Mathematics, Waukesha, WI
8:00-9:00 AM
Friday, May 8, 2015

8:00 - 9:00 a.m.  60 Minute Sectionals

312
Bauer-Morehouse C (50)
Grades 6-8

Measuring Mathematical Proficiency through Closure Activities
Discover creative methods for summarizing mathematical proficiencies in daily lessons as well as chapter closures. Participants will leave with practical activities such as creating a magic book, scavenger hunt and many more!

Jamie Bernath, Parkview Middle School/CPM, Green Bay, WI
jbernath@ashwaubenon.k12.wi.us

313
Kern-Hanson (50)
Grades 6-8

Physical Education Activities that Relate to Middle School Mathematics
This presentation will highlight some of the activities that your Physical Education teacher already does and how you can relate some of those statistics to your mathematics classes. In addition we will show how you can use Punt - Pass - & Kick activities to measure football trajectories.

John Wamser, Milwaukee Scholars Charter Academy, Milwaukee, WI
johnwamser@yahoo.com

314
Kern-Stansbury (32)
Grades 6-8

Embedding Mathematical Practices Using Study Team Strategies in Daily Lessons
Are your students actively engaged in their learning? Can they persevere through tough challenges? Do they think and speak like a mathematician? Discover new strategies to bring out the higher level thinker and team player in ALL of your students.

Bonnie Walczak, Parkview Middle School / CPM, Green Bay, WI
bwalczak@ashwaubenon.k12.wi.us

8:00-9:00 a.m.  Keynote Speaker

315
Lakeview (300)
Grades 6-8 Keynote

Keeping It Real: Authentic Real-World Math Lessons (Middle School)
How long does it take to burn off a Big Mac? Do taller Olympic sprinters have an unfair advantage? Is Wheel of Fortune rigged? In this presentation, we’ll engage in authentic (real-world) and cognitively rigorous activities for your middle school math classroom, and discuss how to use them to foster a culture of conversation and critical thinking.

Karim Ani, Mathalicious, Charlottesville, VA

8:00 - 9:00 a.m.  60 Minute Sectionals

316
RWI-McGarvey (24)
Grades 6-8

MS Tasks to Build Proficiency in Probability and Statistics
Middle School standards for Probability and Statistics have changed considerably. Engaging activities will be explored and shared. These activities immerse students in the Mathematical Practices while developing proficiency with data and chance.

Jenna Munden, Rice Lake Middle School, Rice Lake, WI
mundenj@ricelake.k12.wi.us
Darla Olson, Rice Lake Middle School, Rice Lake, WI
Dean Roush, Luck High School, Luck, WI
Brian Daniel, Menomonie Middle School, Menomonie, WI
Kathryn Ernie, UW-River Falls, River Falls, WI

317
RWI-Veranda C (48)
Grades 6-12

Fixed Mindsets, Math Anxiety and Working Memory
In this session, we’ll make the connection between fixed mindsets, math anxiety and working memory and discuss strategies we can take to break our students out of the “I can’t do this” box.

Brad Berlage, Berlage Mentoring Services, Chicago, IL
bberlage@yahoo.com
Annette Roskam, University of Delaware, Newark, DE
How Do we Help Non-STEM Intending Seniors Stay Engaged in Mathematics?
We will overview a NSF-funded problem-based, inquiry-oriented, technology-rich mathematics program. This capstone course continues algebraic preparation and provides exposure to interesting mathematics and statistics topics.

Beth Ritsema, Mathematics Education Consultant, Caledonia, MI beth.ritsema@gmail.com

The UW Mathematics Placement Test: Understanding the Test and Processes
This session will provide a brief overview of the UW Mathematics Placement Exam. The purpose and content of the test, validation processes, and uses for placement into mathematics courses by the UW campuses will be covered.

Sonya Sedivy, UW Center for Placement Testing, Madison, WI
Julia McDonald, UW-Platteville, Platteville, WI

Mathematical Proficiency for Majoring in Actuarial Sciences and Operations Research
Students trust their high school teachers for advice about their future careers. What advice will you give a student who wants to study a mathematics related field? While many students enjoy mathematics in high school, they are often unclear about potential careers in mathematics. With a strong emphasis in STEM fields, Milwaukee School of Engineering (MSOE) started offering two new mathematics majors in Fall of 2014: Actuarial Science and Operations Research. These careers are projected to have excellent employment opportunities. In this session we will discuss the fields of Actuarial Science and Operations Research, as well as the necessary proficiencies that students should have if they intend to major in these two applied mathematics areas in college. We will also discuss how we measure our students’ mathematical proficiency in Actuarial Science and Operations Research curriculum mathematics courses.

Yvonne Yaz, Milwaukee School of Engineering, Milwaukee, WI yaz@msoe.edu
Kseniya Fuhrman, Milwaukee School of Engineering, Milwaukee, WI

LOL :)Math Humor
Research suggests that humor produces psychological and physiological benefits that help students learn. We just like to laugh with our students. Be ready to smile as we share with you how we connect humor with learning.

Anne Barber, Lincoln High School, Wisconsin Rapids, WI anne.barber@wrps.net
Karen Scarseth, Lincoln High School, Wisconsin Rapids, WI

Using Literacy Skills to Measure Mathematical Proficiency
This session will focus on the literacy skills of reading, writing, and talking as means to uncover students’ thinking and comprehension of math. This session will focus on questioning to gather information about students’ levels of mastery and misconceptions, descriptive feedback to guide instructional steps, and meaningful discourse to provide students with opportunities to co-create understanding.

Elizabeth Hoyer, Lowell Elementary School, Waukesha, WI ehoier@waukesha.k12.wi.us
Will Taage, School District of Waukesha/ Hawthorne Elementary, Waukesha, WI
Rose Palmer, School District of Waukesha, Waukesha, WI

Precise Language, Correct Vocabulary in Our Math Classrooms
We need to help ALL of our students use precise language and correct grade appropriate vocabulary in our classrooms. So what should you do? This session will provide you with strategies and routines to incorporate into your lessons. Let’s get them talking about math!

Michelle Bittick, School District of Mauston, Mauston, WI
9:30-11:00 AM
Friday, May 8, 2015

9:30 - 11:00 a.m.  90 Minute Workshops

324
Kern-Hanson (50)
Grades 2-6 Exhibitor

Designing Differentiation that Moves
Differentiated instruction does not happen by accident. Differentiation in the classroom is all about understanding that we are dealing with a group of diverse individuals and adapting our teaching to ensure that all of them have access to learn. How do we as teachers teach the whole class mathematics with the individual student at mind? This session examines how to find out what children know and need and then how to design instruction that advances all students’ mathematical thinking and success. The Grade 2-6 session focus will be on multiplication and division.

Jessica Finley, US Math Recovery Council, Spokane, WA

325
Kern-Stansbury (32)
Grades 2-8

STRETCh & Scratch - Integrating Coding into Your Curriculum
Strive To Reach Every Talented Child (STRETCh) by creating a differentiated way for students to display their curricular knowledge. You don’t need to be a computer expert or even know anything about computer “coding” to get started! Bring your computer for a hands on session that will provide everything you need to bring gaming to the classroom.

Heidi Williams, Heyer Elementary School, Waukesha, WI
hwilliams@waukesha.k12.wi.us

326
Bauer-Lightbody (32)
Grades 2-12

Connecting Critical Standards Across the Years
Join us as we trace the content of several critical Common Core State Standards progressions. We will start in elementary school examining fractions, then delve into ratio and proportions in middle school and investigate algebra and functions in high school. We will use tape diagrams, number lines, and double number lines as tools to explore the mathematics. This will highlight a few of the summer modules from the Wisconsin Statewide Mathematics Initiative (WSMI).

Paige Richards, Brookhill Institute of Mathematics, Waukesha, WI
Sara Brown, Brookhill Institute of Mathematics, Waukesha, WI
Jeff Ziegler, Brookhill Institute of Mathematics, Waukesha, WI

327
RWI-Crystal (64)
Grades 6-8

Finding Great Middle School Area Problems
Non-routine problems are an effective tool to teach area at the middle school level. The real problem is finding appropriate problem-solving gems. Math contests are a fertile source. Work through a dozen area contest classics. Leave with these and over 50 additional problems to use immediately.

Dennis Mulhearn, MOEMS Math Olympiad, Valley Stream South High School (Emeritus), Merrick, NY
li_mathguy@yahoo.com

328
RWI-Veranda A (48)
Grades 6-8

When Do I Have Time to Make Work Stations?
Due to popular demand, this workshop is back from last year. We will create 10 to 15 minute work stations based on CCSSM. Participants will leave with materials and instructions for over 20 work stations.

Annette Nelson, Northland College, Ashland, WI
anelson@northland.edu

329
Bauer-Boddie (32)
Grades 6-12

Ready, Set, STEM! Using Lego Mindstorms in the Mathematics Classroom
This session will outline the basics of Lego Mindstorms EV3 robotics kits. We will discuss potential use in the classroom and engage in an activity focusing on proportional reasoning, measurement, programming, and engineering.

Josh Hertel, UW-La Crosse, La Crosse, WI
jhertel@uwla.x.edu

It is wise to select alternative sessions in advance so that you can quickly move to another session. Popular sessions often fill up at least 20 minutes before the starting time.
Using student responses from the AP Exam to help guide your students as they write their free-response answers.

Jason Dahl, Oconomowoc High School, Oconomowoc, WI
dahlj@oasd.org
Bill Fehrenbach, Wisconsin Rapids Lincoln High School, Wisconsin Rapids, WI
Mike Hendricks, Kewaskum High School, Kewaskum, WI
Todd Brahm, East High School, West Bend, WI
Allison Hopkins, Oconomowoc High School, Oconomowoc, WI

9:30 - 10:30 a.m.  60 Minute Sectionals

334
Kern-Johnson (50)
Grades PK-6 Exhibitor

Think Hybrid: Another Model for RtI
Many schools find that more than 20% of their student population is at risk in the area of mathematics. Research suggests that universal instruction needs to be strengthened. A Hybrid RtI model designed by classroom teachers is needed, as educators are the driving force behind improvements in education.

Mollie Gabrielson, US Math Recovery Council, Rapid City, SD
mollie@mathrecovery.org

9:30 - 10:30 a.m.  Keynote Speaker

335
Lakeview (300)
Grades PK-8 Keynote

Leveraging Effective Teaching: Principles to Actions & Professional Learning
Engage with the new (and free) NCTM professional learning modules on the eight research-based teaching practices in Principles to Actions and then continue the conversation with colleagues back in your districts.

DeAnn Huinker, UW-Milwaukee, Milwaukee, WI
huinker@uwm.edu
336  
Bauer-LaDue (24)  
Grades PK-16  

Becoming a Connected Educator with the #MTBoS  
Connected mathematics educators have banded together in what is known as the #MTBoS - the Math Twitter Blogosphere. Find out how you can join them to harness the power of social media and take charge of your professional learning.

Jennifer Lawler, Kenosha Unified School District, Kenosha, WI  
jlawler@kusd.edu

338  
Kern-Boehr (50)  
Grades 4-6  

Applying the Self-Regulated Strategy Development (SRSD) Model to Math Instruction: Teaching Underachieving Fifth-Grade Students to Solve Long Division Problems  
Providing targeted math intervention early for students who struggle is important as doing so not only improve struggling student’s mathematics ability, but also prevent subsequent failure (Gersten et al., 2009; Gersten & Newman-Gonchar, 2011). In this session, participants will learn about a new targeted math intervention designed to improve the long division skills of struggling fifth grade mathematicians. The intervention, based on the Self-Regulated Strategy Development (SRSD) model, is designed to improve targeted math skills and self-regulation skills.

Leslie Rogers, UW-La Crosse, La Crosse, WI  
lrogers@uwlax.edu  
Jennifer Kosiak, UW-La Crosse, La Crosse, WI

339  
Bauer-Morehouse B (100)  
Grades 4-8  

Measuring the Forest with the CCSS  
Measurement of nature is the context for math activities in seasonal visits to parks. Create an outdoor math classroom and watch students engage in productive discussions as they compare measurements, observations and conjectures.

Veronica Ocampo, Greenfield Bilingual School, Milwaukee, WI  
ocampovocampov@gmail.com

340  
Bauer-Beaty (50)  
Grades 4-16  

Inspiring the Next Generation of Mathematicians and Thinkers  
We will look at some of the tools that Euler and Newton had to see how we can inspire the next generation.

Amos Tarfa, Learning Institute for Excellence, Duluth, MN  
amostarfal@gmail.com

341  
Kern-Brown (32)  
Grades 6-8  

Making Student Thinking Visible through Personalized Learning  
WSA continues to develop personalized learning experiences for all students by making student thinking visible. Learner profiles, proficiency-based feedback, and customized learning paths support this vision.

Christina Sprader, Waukesha STEM Academy, Waukesha, WI  
csprader@waukesha.k12.wi.us  
Bryn Grosskopf, Waukesha STEM Academy, Waukesha, WI
9:30-10:30 a.m.  60 Minute Sectionals

342
Kern-Cary (50)
Grades 6-8

A Secondary Mathematics Story: More Customized, More Rigorous, More Engaging, More Responsive
Join us for a discussion about the journey from a traditional mathematics classroom to a customized learning environment. Using a blended learning approach in extended periods, we incorporate adaptive technology and a workshop model that emphasizes data-driven small group instruction and individualized conferencing. We enhance student achievement through customized content which fosters a growth mindset and addresses academic gaps. We would love to share our story with you: the good, the bad, and the somewhat pretty.

Jackie Cebertowicz, East & West Middle School, Oak Creek, WI
John Marzion, Oak Creek-Franklin School District, Oak Creek, WI
Jennifer Van Acker, Oak Creek-Franklin School District, Oak Creek, WI
Annalee Bennin, East Middle School, Oak Creek, WI

11:00 a.m. - 12:00 p.m.  60 Minute Sectionals

343
Bauer-Morehouse A (100)
Grades PK-16

Understanding Milestones of Mathematical Developmental
Just like a child grows and develops in age and maturity, students develop mathematically and move through distinct mathematical phases. This 60 minute session will explore key milestones along this developmental journey. Student video and work samples will demonstrate what children know and are able to do at each phase. We will also discuss points along this journey where many students’ development stalls. A review of the research will also be included.

Sara Cutler, SEAMS Consulting, Madison, WI
Sarah Lord, Madison Metropolitan School District, Madison, WI
Karl Franzen, Madison Metropolitan School District, Madison, WI
Emily Pease-Clem, Madison Metropolitan School District, Madison, WI

11:00 a.m. - 12:30 p.m.  90 Minute Workshops

344
Bauer-Morehouse B (100)
Grades PK-6

Number Talks Routine for Your Classroom
A number talk is a short, ongoing daily routine that provides students with meaningful daily practice with mental computation. The practice of number talks is one of the most powerful vehicles for helping students learn to reason with numbers and make mathematically convincing arguments, for building a solid foundation for algebraic reasoning, and for teaching mathematics as a sense making process. Students will use number relationships and the structures of numbers to add, subtract, multiply and divide. Teachers who are successful at facilitating academically productive discussions draw on a toolkit of strategies that guide students to think and talk in new ways. This session will provide teacher with the skills and resources to make this shift in their practice.

Karen Reiss, School District of New Berlin, New Berlin, WI
karen.r.reiss@gmail.com

345
Bauer-Beaty (50)
Grades K-2

Using Story Problems to Teach to Specific Mathematics Goals
Story problems can be used to meet three mathematics learning goals: understanding new problem types, developing operation sense, and developing computation strategies. Let’s get beyond asking, “Did anyone do it differently?”

Lori Williams, Manitowoc Public Schools, Manitowoc, WI

346
RWI-Crystal (64)
Grades PK-3

Building Mathematical Vocabulary in the Primary Classroom
Mathematical vocabulary is a vital part of a mathematics program. During this session, you will see how a second grade teacher utilizes mathematical vocabulary within her classroom. How her students develop descriptions and examples for each term, how the vocabulary is reinforced within mini-lessons and strategy groups, and how the students are able to practice the terms and descriptions in a fun and engaging manner.

Rebecca Paasch, Dixon Elementary School, Brookfield, WI
Pat Glubka, Dixon Elementary School, Brookfield, WI
Erin Kleber, Dixon Elementary School, Brookfield, WI
**11:30 AM-12:30 PM**  
**Friday, May 8, 2015**

**11:30 a.m. - 12:30 p.m. 60 Minute Sectionals**

### 347
Kern-Johnson (50)  
Grades PK-6  

**Desirable Difficulties: Is Easier Always Better?**  
Can difficulties ever be desirable? Does “spaced” practice lead to long-lasting learning? Should teachers “be less helpful”? We describe research about learning activities that are difficult but effective.

Andy Isaacs, University of Chicago, Oak Park, IL  
aisaacs@uchicago.edu

### 348
RWI-Mahaney (40)  
Grades PK-6 Exhibitor  

**What is the Easiest Way to Increase Student Achievement with Everyday Mathematics?**  
Join EMWisconsin.com

Join a consortium of EM districts from Wisconsin to Shanghai, China and have access to customized resources for the 2007 and 2012 curriculum packages. You can take your district’s math instruction to the next level with CCSS learning targets, common summative assessments, formative assessments, parent progress reports, CCSS report cards, SMP posters, RTI/Teacher Effectiveness tracking tools, basic fact resources, and more.

Mary Freytag, Everyday Mathematics, Sun Prairie, WI  
freytag@merr.com

### 349
Kern-Hanson (50)  
Grades PK-12  

**Making Homework Look like its 2015 Instead of 1985 (or 2014) - Take 2**  
Technology & Standards have changed, why not daily practice (homework)? Hear how one teacher committed 2 years ago to making his classroom look different with better feedback using online resources, projects and flipped lessons. Many year 1 versus year 2 comparisons.

Scott Anderson, Juda School, Juda, WI  
sa@judaschool.com

### 350
RWI-Veranda A (48)  
Grades PK-12  

**Manga High, from the Makers of Candy Crush - Big Time Engagement!**  
When my students were organizing their own math competitions on Friday nights, I knew I was on to something big. Come here how the website Manga High leveled the playing field in my classroom and got my most reluctant learners to the top of the leader boards. Avatars, badges, and competitions make this website one that leaves the students begging for more!!! Measurable growth happens when you can individualize practice and give immediate feedback, you can do that and more with this awesome resource.

Linda Gutierrez, Outburst Academic Consulting, Farmington, NM  
linda.outburst@gmail.com

### 351
Kern-Brayton Case B (60)  
Grades 1-5  

**How Do They Show What They Know?**  
The CCSSM Practice Standards integrated with the Research-based Strategies in the Content Standards began a “Talk & Show” movement. We will explore how the strategy progressions provide tools for students to show what they know.

Nancy Berkas, EdSights, LLC, Fort Atkinson, WI  
nberkas@charter.net  
Cynthia Pattison, EdSights, LLC, Fort Atkinson, WI

### 352
RWI-Veranda C (48)  
Grades 2-3 Exhibitor  

**The Parallel Journeys of Assessment and Instruction**  
Participants will view Math Recovery® instructional video illustrating the interconnectedness of assessment and instruction as it relates to students’ competency with basic facts and sophistication of place value strategies.

Vicki Breneman, US Math Recovery Council, Apple Valley, MN  
vicki@mathrecovery.org
CCSS Mathematics: Merging Mathematical Skills with Mathematical Practices
The CCSS Mathematical Practices (MP’s) are essential components in developing deep mathematical understanding in students. Educators must intentionally provide students with opportunities to apply the MP’s that deepens their understanding. Participants will explore implications for teaching mathematical practices, and understand the connections of the practices to content standards and instruction.

Pamela Richards, Leadership and Learning Center, Rogers, MN

When the Moon Hits Your Eye
With hands-on activities, we will explore opportunities for teaching students to scale distances, volumes, and time intervals, to create an accurate scale model of the earth, the moon, and the sun.

John Beam, UW-Oshkosh, Oshkosh, WI

Engaging Students Through Math Exploration
Discover how to engage your students by using NCTM’s hidden gem publication, Student Explorations in Mathematics. Join an editorial panel member of this publication to learn more about implementation of these activities in your classroom, as well as understand how to gain access to nearly 100 exploratory activities.

Derek Pipkorn, Mequon-Thiensville School District, Mequon, WI dpipkorn@mtsd.k12.wi.us

High Quality PD...in Your Pajamas?
Take learning into your own hands & revolutionize your professional development by building your Personal Learning Network. Discover an abundance of online resources to expand your PLN that allow you to connect & interact with people from all over the world. You’ll leave with a tool bag of resources to ignite your PD passion!

Jessica Bogie, Fischer Middle School, Plainfield, IL jessica_bogie@jpsd.org

I am Flipped for Math
What is a Flipped Classroom? In short, a “flipped classroom” switches around the traditional order of teaching with the purpose of creating a more in depth and supportive environment in the classroom when the teacher is present and able to help students. It allows for students to receive a more individualized math education where my actual face-to-face time with them is being used effectively. This results in them understanding the content at a higher and deeper level than before. In addition, it challenges students to learn how to take charge of their learning and manage their time, becoming resourceful learners. Lastly, it provides time for more “Higher-Order Thinking” discussion and questioning during class time, helping students to become reflective communicators and to think more deeply about the subject. I have utilized my flipped classroom to differentiate my seventh grade lessons and improve my overall mathematics instruction. My students have become better math students and have developed a deeper understanding of math due to this flip. Come and learn how you can flip your classroom too!

Lynn Schaal, Bonduel Middle School, Bonduel, WI schaalyn@bonduel.k12.wi.us

Building Concepts: Making Sense of Statistics
Engaging students in analyzing data should develop understanding of core statistical concepts such as distribution, mean as “balance point”, and significant difference. Interactive dynamic technology and contexts such as animal speeds, soccer scores, and the number of pairs of shoes students own make these important statistical ideas concrete.

Gail Burrill, Michigan State University, East Lansing, MI burrill@msu.edu
11:30 a.m. - 12:30 p.m.  60 Minute Sectionals

360  Bauer-Morehouse C (50)  
Grades 6-12  

Helping Students to Higher and “Hire” Educations  
One of the greatest misconceptions in education today is that students come to school knowing how to learn, how to work cooperatively, or even how to conduct themselves in public. In these sessions, participants will learn how to address these issues—plus more—by significantly increasing the amount of time they spend on direct instruction and decreasing the amount of time they spend giving repeated requests, multiple warnings, and/or consequences for student misbehavior. In these sessions, participants will learn how investing extra time in effective classroom management as well as improved student-teacher relationships, will increase the amount of time you have for meaningful instruction throughout the year.

James Riegert, Elmbrook School District, Brookfield, WI  
drjamesriegert@yahoo.com

F R I D A Y

361  Kern-Boehr (50)  
Grades 9-12  

Geometer’s Sketchpad Can Enhance All Your Secondary Math Courses  
In this session, many examples of activities and explorations you can do on the software Sketchpad will be presented in a non-lab setting. Discover the benefits of using technology that helps demystify mathematics.

Michael Tamblyn, Whitewater High School, Whitewater, WI  
mtamblyn@wwusd.org

362  Kern-Brown (32)  
Grades 9-12  

Algebra, Geometry, and Statistics - Take 2  
When the traditional classroom courses have left students unsuccessful, an independent project-based learning course may be the solution. We will share the design of our Explorations course and how it has helped many students succeed for the first time in math.

Karen Scarseth, Lincoln High School, Wisconsin Rapids, WI  
karen.scarseth@wrps.net  
Anne Barber, Wisconsin Rapids High School, Wisconsin Rapids, WI

363  Kern-Cary (50)  
Grades 9-12  

Exploring Computer Science  
This panel discussion features Exploring Computer Science (ECS) teachers reflecting upon their experiences with the rollout of this inquiry- and project-based curriculum over the past year. ECS is a substantial change for both students and teachers, with a deep focus on the three pillars: Inquiry, Equity, and Computer Science Content.

Dennis Brylow, Marquette University, Milwaukee, WI  
Melissa DeFalco Menge, North Division High School, Milwaukee, WI  
Bob Sliwinski, St. Francis High School, St. Francis, WI

12:30 a.m. - 1:00 p.m.  30 Minute Sectional

401  Kraft Centre Courtyard  
Grades PK-16  

The Power of Parabolas  
What do the headlights of your car, mini golf, and tailgating all have in common? They all use the power of parabolas! Come to the Kraft Center courtyard to try your hand at mini golf or use the sun’s rays to cook yourself a meal. This mini-session will only occur if the weather cooperates - so stop by if the sun is shining!

Dave Ebert, Oregon High School, Oregon, WI
1:00-2:00 p.m. 60 Minute Sectionals

402
Kern-Brayton Case B (60)
Grades PK-3

Using Number Talks to Deepen “Kid Talks” About Number Sense
Through the daily use of Number Talks students deepen their understanding of quantity and strengthen their ability to use numbers flexibly to add and subtract. This presentation will share incorporating Number Talks 10-15 minutes a day and how it will support the development of mental math strategies as well as boosted mathematical language for students in an urban classroom. Come and learn how Number Talks helped students develop the ability to defend their own thinking and respectfully critique the reasoning of others. Leave with an understanding of how using Number Talks led to the development of a strong mathematical community that supported perseverance and a positive productive struggle!

Danielle Robinson, Brown Street Academy, Milwaukee, WI
robinsd1@milwaukee.k12.wi.us

403
Bauer-Beaty (50)
Grades PK-6 Exhibitor

Understanding Equality - Recognizing Where Students are at with Their Understanding of Equality and Helping them Grow
CCSS 1.OA.7 requires students to understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. There are various levels of which students understand equality. Although it is a first grade standard, understanding equality in-depth has a great impact on the success of students working within many other elementary standards such as understanding equality with multiplication/division or when operating with fractions. It has huge impact on a student’s success in algebraic reasoning. Come learn about the levels of understanding and how to help your students understand equality with greater depth.

Amy Paladino, Kosciuszko Elementary School, Cudahy, WI
paladinoa@cudahysd.org
Alison Terry, Kosciuszko Elementary School, Cudahy, WI

404
Kern-Hanson (50)
Grades PK-6

Everyday Mathematics 4: Engineered for the Common Core
Everyday Math continues a legacy of proven student gains with EM4. Your students will achieve more with the researched-based activities, games, hands-on experiences, and increased focus on the Standards for Mathematical Practice. Come and learn how lessons have been streamlined, how differentiation options have been expanded, and how student and teacher technology tools have been enhanced.

Mary Freytag, Everyday Mathematics, Sun Prairie, WI
freytag@merr.com

405
Kern-Brown (32)
Grades PK-12

Information on Graduate Degrees in Mathematics Education
Have you ever thought about pursuing a Master’s or Ph.D. in Mathematics Education? Presenters at this session will highlight available options, candidly discuss the rewards (and challenges), and share their experiences.

Josh Hertel, UW-La Crosse, La Crosse, WI
jhertel@uwla.x.edu
Matthew Chedister, University of Wisconsin-La Crosse, La Crosse, WI
Jennifer Harrison, UW-Eau Claire, Eau Claire, WI
Ryan Harrison, UW-Eau Claire, Eau Claire, WI

406
Kern-Cary (50)
Grades PK-16

Computer Science Education in Wisconsin and the CSTA WI-Dairyland Chapter
Lots to discuss: the new CS Education in WI trifold, updates on CS licensing and counting CS as math, creating community with our CSTA WI-Dairyland chapter - gathering suggestions for activities and volunteering opportunities.

Joseph Kmoch, Washington High School of Information Technology, Milwaukee, WI
joe@jkmoch.com
They Say They’re Aligned, But Are They Really? Tools to Evaluate Alignment to the CCSSM

Nearly every commercially published resource now claims to be “fully aligned” to the Common Core Standards. When evaluating resources for adoption, how are schools and districts to know if they really are? This session will review a variety of tools freely available to help educators accomplish this task. You’ll never look at a textbook the same again.

Jennifer Lawler, Kenosha Unified School District, Kenosha, WI
jlawler@kusd.edu

True Standards Based Grading Starts with Quality Assessments

Imagine the possibilities to be able to truly know where a student has performed at on an assessment; without counting points, without averaging, quicker, and much more effective. Now, add to that the opportunity for a student to demonstrate advanced learning all on one assessment. We have it, come check it out.

Mark Schommer, DC Everest School District, Weston, WI
mschommer@dce.k12.wi.us
Sarah Trimner, DC Everest School District, Weston, WI

Problem Solving Revealed: Creating iBooks in Math with Book Creator

Transform how students learn math through the creation and sharing of iBooks using the math workshop model in Book Creator. It incorporates collaborative learning, teacher modeling, student-led, and differentiation. iBooks vary from individual notebooks to class projects. Learn how iBooks fuse cooperative learning, differentiation, and math practices.

Elizabeth Ramsay, Longfellow Middle School, La Crosse, WI
eramsay@lacrosseschools.org

Lesson Study for the Rest of Us

Previously it has been difficult for teachers in small departments to participate in lesson studies, but technology removes collaboration barriers. We will explore a model that allows any teacher to participate in a lesson study.

David Berger, Menomonie High School, Menomonie, WI
david_berger@msd.k12.wi.us

From AngLegs to Technology: Exploring Triangle Similarity Concepts

This workshop will be explorations of triangle similarity concept utilizing AngLegs and technology. First we will dive right into AngLegs method and then will integrate GeoGebra to explore properties of triangle similarity.

Bhesh Mainali, UW-Superior, Superior, WI
bmainali@uwsuper.edu
Heidi Eisenreich, UW-Superior, Superior, WI

Math Chat: Evaluating Mathematical Proficiency through Communication Skills

The way students communicate about math reflects their understanding of mathematical concepts. Come share in some written, verbal and improv activities your students will enjoy, that also inform your middle/secondary classroom instruction.

Brad Berlage, Berlage Mentoring Services, Chicago, IL
bberlage@yahoo.com
Annette Roskam, University of Delaware, Newark, DE

100 (base two) Binary Curiosities

An introduction to the Binary System of numeration will be presented. A few curiosities such as Ethiopian Multiplication, “Mind Reading” Cards, counting to one thousand on your fingers, and NIM will be discussed.

Norbert Kuenzi, UW-Oshkosh, Oshkosh, WI
Using Graphing Calculators in a Core Algebra II Classroom

Because of the National Core Standards for Mathematics, our school enacted a policy that all students will pass an Algebra II class. This past year, I incorporated TI-84s into a Core Algebra II classroom where many of the students would NOT have taken Algebra II in the past.

Mary Rumpel, Ellsworth High School, Ellsworth, WI
rumpelm@ellsworth.k12.wi.us

All You Zombies

We will explore ways to integrate Common Core Mathematical Practices with Next Generation Science Standards scientific practices in a student friendly zombie activity. Attendees will investigate mathematical models of zombie outbreaks and then participate in a “lab activity” where an actual zombie outbreak will be studied and data will be collected.

Megan Litster, UW-La Crosse, La Crosse, WI
mlitster@uwlax.edu
Robert Allen, UW-La Crosse, La Crosse, WI

10 Things You Didn’t Know You Could Do with a Graphing Calculator

According to Moore’s Law, computers are 1,000 times as powerful as they were two decades ago. What does that mean for the types of exploration that’s possible on one of the many graphing calculator apps for computers and tablets? We’ll focus on the free Desmos app, as that’s the one that Eli knows best, though many of the activities apply to any new graphing app.

Eli Luberoff, Desmos, San Francisco, CA
You Down with SMP? Yeah, Let’s All Be!
Participants will collaborate on math tasks and will practice using checklists, rubrics and question frames to help students self-reflect and evaluate their proficiencies of the SMP. Start this workshop as a learner focused on your own understanding of the SMP; finish as an educator ready to implement and celebrate them!

Jessica Bogie, Fischer Middle School, Plainfield, IL
jessica_bogie@ipsd.org

Measuring Up? How About a Little Competition?
A fun activity for teachers of all grades with an emphasis on teachers of grades 4 through 8. Nicholas Restivo, the Executive Director of MOEMS® (Mathematical Olympiads for Elementary & Middle Schools) and his colleagues will run a Mini-Tournament to get your Creative Problem Solving juices flowing right after lunch! You will be asked to solve five math olympiad-type problems on your own in fifteen minutes. Immediate feedback will be provided to see how you fared. The second round gets even more exciting: five problems; 10 minutes; a team of four (4) teachers hand in only 1 set of answers. You’ll have to figure out how to work together as a team...don’t you tell your students that all the time? Once again, immediate feedback and then awards to the high scoring individuals, and teams.

Hint: try to arrange for your team members (4 per team) while you’re at lunch, or even sooner. It will save us some time once we get under way. This event is a great non-pressured way to experience what 150,000 students all over the world experience monthly. Plan to be there!

Nicholas Restivo, Mathematical Olympiads for Elementary & Middle Schools (MOEMS®), Bellmore, NY
nrestivo@moems.org
Dennis Mulhearn, MOEMS, Bellmore, NY
Dorothy Hess, MOEMS, Bellmore, NY

Khan Me Into Math - Using Khan Academy to Enrich, Support and Extend Learning
Participants will be exposed to the coaching resources of Khan Academy, which include setting up classes, coaching students, exercise suggestions, Common Core alignment, grade level programs, and more.

Ed Price, Whitman Middle School, Wauwatosa, WI
priceed@wauwatosa.k12.wi.us
Jason Thurow, Whitman Middle School, Wauwatosa, WI

Are Euclidean Me?
In this session, we’ll compare the geometry of the Euclidean world with the geometry on a sphere.

Jason Thrun, UW-Platteville, Platteville, WI
thrunj@uwplatt.edu

PK-2 Students as Problem Solvers
This session will explore problem solving tasks across several CCSSM content domains including Counting & Cardinality, Operations & Algebraic Thinking, Measurement & Data, and Geometry. In addition, participants will focus on how the CCSSM practice standards are embedded in each task. Through student work samples (pencil/paper and podcasts) participants will discuss a variety of student strategies and difficulties as well as explore ways to differentiate each task to support student growth.

Jenni McCool, UW-La Crosse, La Crosse, WI
jmccool@uwlnx.edu
Jennifer Kosiak, UW-La Crosse, La Crosse, WI
Kim Markworth, Western Washington University, Bellingham, WA
Five Easy Steps to a Balanced Math Program
How can teachers build mathematically powerful students who can solve real-life problems, communicate their understanding to others, and perform well on standardized achievement tests? This interactive session will share a proven model for “balancing” computational skills, with conceptual understanding and problem-solving with any math program. This interactive session-based on the research of Jan Christinson- will introduce participants to four instructional areas to “balance” out textbook and standards-driven teaching: computational strength, number sense, problem solving, and conceptual understanding. These ideas can work in conjunction with any mathematics program. Attendees will learn the key components of each step and short activities that will enhance their understanding of the step.

Pamela Richards, Leadership and Learning Center, Rogers, MN

Relating the Unit Circle to the Graphs of Sine and Cosine via Measurement
This talk will discuss a sequence of activities used two consecutive semesters in a trigonometry class. Given a paper ruler calibrated to a provided unit circle and the provided trigonometric “graph paper,” students measured the values of sine and cosine for each multiple of 10 degrees and plotted the points on the graph paper. The activity dispelled the fallacy that the graph of the sine function should look like a zigzag line and provided an opportunity to discuss the different roles that the variables “x” and “y” play in trigonometry. At the end of the presentation, I will discuss changes I made to this activity with the new group of students.

Edward Kim, UW-La Crosse, La Crosse, WI

Computing for All: Labor Projections, CS K-12 Stds., Computational Thinking
A buffet of issues related to CS/IT have surfaced in recent years. We’ll look at some historical background then updated labor projections, CS standards, Computational Thinking practices and the relation with WI STEM thinking.

Joseph Kmoch, Washington High School of Information Technology, Milwaukee, WI
joe@jkmoch.com

Do you have the WRITE stuff?
LOOKING for the opportunity to write for a professional JOURNAL?
The Wisconsin Teacher of Mathematics invites you to share what you’re doing in your classroom, research with which you may be involved or a great tip you think other educators could use. Each issue offers articles for the different grade bands so we’re looking for submissions focusing on PK through post secondary education.

We are accepting articles for future issues; visit the WMC website www.wismath.org for submission guidelines.

Articles should be sent to jhertel@uwlax.edu.
The Wisconsin Mathematics Council is proud to host a comprehensive mathematics education Exhibit hall located in the Pillsbury building. Exhibits by commercial producers of instructional materials are an integral part of the WMC Annual Conference. Textbooks, teaching aids, hardware, software and more are on display. Come explore the wide variety of new materials available and to speak with exhibit representatives.

**2015 Conference Exhibitors (as of April 5, 2015)**

The Wisconsin Mathematics Council is proud to host a comprehensive mathematics education Exhibit hall located in the Pillsbury building. Exhibits by commercial producers of instructional materials are an integral part of the WMC Annual Conference. Textbooks, teaching aids, hardware, software and more are on display. Come explore the wide variety of new materials available and to speak with exhibit representatives.

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Acceptance as an exhibitor at Wisconsin Mathematics Council Conference should not be construed as an endorsement of textbooks, programs or products exhibited or sold by companies exhibiting.

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- Houghton Mifflin Harcourt Education – Keynote Speaker
- Scholastic Education/Math Solutions – Keynote Speaker

**Exhibit Hall Hours**

Thursday 8:00 a.m.–4:00 p.m.
Friday 8:00 a.m.–1:30 p.m.
The Wisconsin Mathematics Council 2016 Annual Conference will bring together educators from around the state and nation. Be part of this outstanding professional development opportunity by presenting your own experiences that have actively engaged students as they develop a robust mathematical understanding. We are looking for presentations that are aligned with the conference theme, *Mathematics in Action*. Topics may include:

- Setting mathematics learning goals to guide instruction and focus learning
- Designing and implementing tasks that engage students in mathematical reasoning and problem solving.
- Supporting students as they actively connect mathematical ideas and representations
- Orchestrating meaningful mathematical discourse among students
- Posing purposeful questions to measure and extend students’ thinking related to mathematical concepts
- Constructing procedural fluency and conceptual understanding through active learning
- Supporting students’ productive struggle in doing mathematics
- Eliciting student thinking to assess mathematical understanding through formative and summative assessment practices

**Consider submitting a proposal for either a 60-minute sectional or a 90-minute interactive workshop. Go to www.wismath.org to submit your proposal online. The proposal deadline is October 1, 2015.**
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The Annual Conference in Green Lake helps educators grow professionally within the guidelines of the Wisconsin Standards for Teacher Development and Licensure under PI-34. Conference Participants can pick up a professional development packet at the WMC booth in the lobby of Kraft Centre to help them organize the many thoughts and ideas generated by the Conference activities. This packet will include a Self-Reflection component to help you with your Professional Development Plan (PDP). It also provides evidence of your attendance at this program and helps you describe activities that will impact your professional growth with the goal of increasing student learning.

Stop by the WMC booth to pick up your participation packet.

Wisconsin Standards for Teacher Development and Licensure

1. Teachers know the subjects they are teaching.
   The teacher understands the central concepts, tools of inquiry, and structures of the disciplines she or he teaches and can create learning experiences that make these aspects of subject matter meaningful for pupils.

2. Teachers know how children grow.
   The teacher understands how children with broad ranges of ability learn and provides instruction that supports their intellectual, social, and personal development.

3. Teachers understand that children learn differently.
   The teacher understands how pupils differ in their approaches to learning and the barriers that impede learning and can adapt instruction to meet the diverse needs of pupils, including those with disabilities and exceptionalities.

4. Teachers know how to teach.
   The teacher understands and uses a variety of instructional strategies, including the use of technology, to encourage children’s development of critical thinking, problem solving, and performance skills.

5. Teachers know how to manage a classroom.
   The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

6. Teachers communicate well.
   The teacher uses effective verbal and nonverbal communication techniques as well as instructional media and technology to foster active inquiry, collaboration, and supportive interaction in the classroom.

7. Teachers are able to plan different kinds of lessons.
   The teacher organizes and plans systematic instruction based upon knowledge of subject matter, pupils, the community, and curriculum goals.

8. Teachers know how to test for student progress.
   The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the pupil.

9. Teachers are able to evaluate themselves.
   The teacher is a reflective practitioner who continually evaluates the effects of his or her choices and actions on pupils, parents, professionals in the learning community and others and who actively seeks out opportunities to grow professionally.

10. Teachers are connected with other teachers and the community.
    The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support pupil learning and well-being and acts with integrity, fairness and in an ethical manner.

For more information regarding the Wisconsin Educator Standards, go to www.dpi.wi.gov/tepdl/stand10.html
Green Lake Conference Center
At a Glance

Wisconsin Mathematics Council
48th Annual Conference
May 4-6, 2016
Green Lake Conference Center | Green Lake, WI

Save the Date!