



schedule at-a-glance

Teachers Development Group
2021 Leadership Seminar | Mathematics
Professional Learning

Saturday, March 13

Pacific Time Zone 9:00 am –12:15 pm

<p>9:00 – 10:00 am Pacific time</p>	<p>Session U</p> <p><i>Creating Classrooms Where All Students are Thinking and Reasoning Mathematically</i></p> <p>Grades 6-8</p> <p>Grace Kelemanik Amy Lucenta</p>	<p>Session V</p> <p><i>What the Pandemic is Helping Us Learn about Inquiry Based Coaching</i></p> <p>Grades PK-12</p> <p>Julie Fredericks Murrel Hoover</p>	<p>Session W</p> <p><i>Inquiry-Based Mathematics Learning Before, During, and After a Pandemic: Embedding Connected Mathematics in a Digital Collaborative Environment</i></p> <p>Grades 6-8</p> <p>Elizabeth Philips Yvonne Grant Alden Edson</p>	<p>Session X</p> <p><i>Engaging in the Deep Work of Mathematics: Supporting High-Cognitive Learning in the Age of Distraction</i></p> <p>Grades PK-16</p> <p>Mike Flynn</p>	<p>Session Y</p> <p><i>Mathematical Hearts: A Culturally Responsive Mathematics Approach to Teaching Mathematics with Empathy and Justice</i></p> <p>Grades PK-8</p> <p>Julia Aguirre Maria del Rosario Zavala</p>
<p>10:15 – 11:15 am Pacific time</p>	<p>Session Z</p> <p><i>Seeing Students as Problem-Solvers In and Out of the Classroom</i></p> <p>Grades 6-12</p> <p>Mary Alice Carlson</p>	<p>Session AA</p> <p><i>What We're Learning to Ask About the Weaving of Mathematics and Equity During Classroom Talk</i></p> <p>Grades PK-5</p> <p>Susan Jo Russell Deborah Schifter</p>	<p>Session BB</p> <p><i>Connecting Math Learning to Learning About Our World: Critical Literacy in the K-8 Math Classroom</i></p> <p>Grades K-8</p> <p>Eva Thanheiser Courtney Koestler</p>	<p>Session CC</p> <p><i>Mathematics Lessons: Responding to Social Injustice</i></p> <p>Grades 3-5</p> <p>Robert Q. Berry III</p>	
<p>11:30—12:15 Pacific time</p>	<p>Generalize to Practice Part III</p> <p>Meet with other educators in facilitated small groups to debrief the day's learning, generalize to your own roles and set next steps for action. Each day, the debrief will have a slightly different focus and involve meeting in break out groups with a variety of participants in similar and different roles.</p>				



2021 VIRTUAL
LEADERSHIP SEMINAR
on Mathematics Professional Learning

Lessons Learned from an Extraordinary Year:

Insights about How to Enact More Equitable & Inclusive PreK-12 Mathematics Teaching & Professional Learning

SATURDAY, MARCH 13

<p>Session U Saturday, March 13</p> <p>9:00—10:00 am Pacific Time</p>	<p><i>Creating Classrooms Where All Students are Thinking and Reasoning Mathematically</i></p> <p>Our students face a world full of seemingly intractable problems, and so it is critical that each and every one of them develops into a powerful math thinker. This will no doubt mean changing some of our current teaching practices as we place more emphasis on mathematical thinking, step out of the middle of classroom interactions and ensure that student struggle is productive. In this middle school-focused session, we'll engage with five essential teaching strategies that promote critical instructional shifts needed to teach all students to think and reason mathematically. We will also discuss implementing the strategies in remote settings.</p> <p>Grade 6-8</p> <p><i>Grace Kelemanik, FosteringMathPractices.com Co-Founder</i> <i>Amy Lucenta, FosteringMathPractices.com Co-Founder</i></p>
<p>Session V Saturday, March 13</p> <p>9:00—10:00 am Pacific Time</p>	<p><i>What the Pandemic is Helping Us Learn About Inquiry Based Coaching</i></p> <p>Many people have noticed how the pandemic has made problems in our educational system related to equity more visible. In this session, we will explore what the pandemic and the move to a virtual environment has highlighted in our work supporting teachers as they try to take on equitable and inclusive teaching practices. Specifically, what important ideas and characteristics of inquiry based coaching are more visible in this environment and what can we learn from this new perspective that will continue to strengthen our work in the future as we move back toward in-person work? Together, we will explore ways to minimize the impact of our own biases in work supporting teachers and how to shift the authority for this work to the professional learning community.</p> <p>Grades PK-12</p> <p><i>Julie Fredericks</i> <i>Murrel Hoover</i> <i>Mathematics Professional Development Specialists, Teachers Development Group</i></p>



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<p>Session W Saturday, March 13</p> <p>9:00—10:00 am Pacific Time</p>	<p><i>Inquiry-Based Mathematics Learning Before, During, and After a Pandemic: Embedding Connected Mathematics in a Digital Collaborative Environment</i></p> <p>The Connected Mathematics Project (CMP) will report on efforts to provide CMP classrooms with a digital collaborative environment. In this environment, students: Investigate mathematics using a new CMP STEM Problem Format:</p> <ul style="list-style-type: none">○ Document, share, and curate mathematics with digital tools○ Access group work in real-time and publish work across groups○ Engage in face-to-face, virtual, or hybrid with the platform and, teachers○ Monitor artifacts of individual and group thinking in real-time or after class○ Quickly scan and select student work for whole-class summary discussions○ Mark-up, incorporate, and publish student work as classroom artifacts○ Create and send “just-in-time” supports to individual or groups of students <p>Grades 6-8</p> <p><i>Elizabeth Philips, Yvonne Grant, Alden Edson Michigan State University, Connected Mathematics Project (CMP) Program in Mathematics Education (PRIME)</i></p>
<p>Session X Saturday, March 13</p> <p>9:00—10:00 am Pacific Time</p>	<p><i>Engaging in the Deep Work of Mathematics: Supporting High-Cognitive Learning in the Age of Distraction</i></p> <p>Are your students able to engage in complicated tasks for long periods of time without distraction? Are you? The digital world makes it harder for all of us to think and work deeply and the pandemic exacerbated this challenge. We tend to scan more than read and we multi-task instead of focusing intently on one responsibility. Luckily, we can fix this problem. In this session you will learn strategies to support students' and teachers' abilities to think, work, and learn deeply. We will address the issue of status in math class and consider how we ensure all students have access to deep learning opportunities.</p> <p>Grades K-16</p> <p><i>Mike Flynn Ed.D., Director of Mathematics Leadership Programs Mount Holyoke College</i></p>



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<p>Session Y Saturday, March 13</p> <p>9:00—10:00 am Pacific Time</p>	<p><i>Mathematical Hearts: A Culturally Responsive Mathematics Approach to Teaching Mathematics with Empathy and Justice</i></p> <p>Culturally Responsive Mathematics Teaching (CRMT) is an approach to mathematics instruction that promotes empathy and justice inside and outside the classroom. In this session we share a CRMT instructional design tool that promotes simultaneous attention to children’s multiple mathematical, community, and critical knowledge bases, instructional rigor and supports, and issues of power and participation in the classroom. Participants will leave ready to assess instruction artifacts (e.g. lessons, assessments, curriculum) with a CRMT lens. Our goal is to nurture mathematical hearts – not just minds – of all people, children and adults alike.</p> <p>Grades PK-8</p> <p><i>Julia Aguirre, Associate Professor of Mathematics Education, University of Washington Tacoma</i> <i>Maria del Rosario Zavala, Associate Professor of Elementary Education, San Francisco State University Graduate College of Education</i></p>
<p style="text-align: center;">BREAK 10:00 – 10:15 am • Pacific Time</p>	
<p>Session Z Saturday, March 13</p> <p>10:15—11:15 am Pacific Time</p>	<p><i>Seeing Students as Problem-Solvers In and Out of the Classroom</i></p> <p>When I ask teachers about their goals for students, learning to be problem-solvers often tops the list. But what if students have already learned to be problem-solvers by participating in the social lives of their families and communities? For the past two years, my colleagues and I have focused on understanding how people solve problems in their day-do-day lives, and on positioning everyday problem-solving practices as assets for middle and high school mathematics instruction. This session explores activity structures and teacher moves that advance equity by building with and strengthening the problem-solving practices youth develop in and out of school.</p> <p><i>Mary Alice Carlson, Associate Professor of Mathematics Education, Montana State University Department of Mathematical Sciences</i></p>



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<p>Session AA Saturday, March 13</p> <p>10:15—11:15 am Pacific Time</p>	<p><i>What We're Learning to Ask About the Weaving of Mathematics and Equity During Classroom Talk</i></p> <p>As they plan and implement mathematics discussions, teachers must both develop a coherent mathematical story line and give all students an opportunity to learn. The first involves eliciting students' ideas, tracking what students are figuring out, and considering how to draw attention to questions and ideas that move the class toward deeper insight. Of equal weight is the second commitment, giving each student an opportunity to engage in substantive reasoning, to voice ideas, and to freely express questions and confusion. In this interactive session, participants will view elementary classroom videos to consider the challenges and tensions of these two commitments.</p> <p>Grades PK-5</p> <p><i>Susan Jo Russell, Senior Researcher, Education Research Collaborative at TERC Deborah Schifter, Principal Research Scientist, EDC</i></p>
<p>Session BB Saturday, March 13</p> <p>10:15—11:15 am Pacific Time</p>	<p><i>Connecting Math Learning to Learning about our World: Critical Literacy in the K-8 Math Classroom</i></p> <p>In this session we will explore critical literacy (Vasquez, 2017) approaches in K-8 mathematics teaching. In a critical literacy approach, students have opportunities to analyze and critique data, discourses, conclusions, and broader implications. We focus on one activity using a children's book (and/or related resources for older students) to examine how we can engage students in learning classical and critical mathematics (Gutstein, 2006), while at the same time supporting them in developing a critical stance towards learning. We will also discuss how a critical stance can be used in other areas of the mathematics curriculum.</p> <p>Grades PK-8</p> <p><i>Eva Thanheiser, Professor for Mathematics Education, Portland State University Courtney Koestler, Director of the OHIO Center for Equity in Mathematics and Science, Ohio University</i></p>



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Session CC

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10:15—11:15 am

Pacific Time

Mathematics Lessons: Responding to Social Injustice

This session examines a framework that uses mathematics to respond to social injustice using critical for four reasons: 1) To build an informed society; 2) To connect mathematics with students' cultural and community histories as valuable resources; 3) Empower students to confront and solve real-world mathematics as a tool to confront unjust contexts, and 4) Help students learn to use mathematics as a tool for democracy and creating a more just society.

Grades 3-5

Robert Q. Berry III, University of Virginia School of Education and Human Development, Samuel Braley Gray Professor of Mathematics Education, Associate Dean of Diversity, Equity, and Inclusion

Generalize to Practice Part 3

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