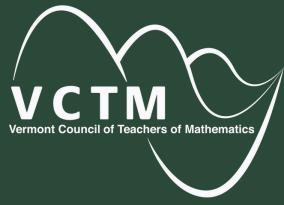


# VCTM 2024 SPRING CONFERENCE



## EQUITY IN MATH CLASS

THURSDAY, APRIL 11, 2024

VERMONT STATE UNIVERSITY  
CASTLETON CAMPUS

8:30 A.M. - 3:30 P.M.

[VCTM.WILDAPRICOT.ORG](https://vctm.wildapricot.org)

# VCTM BOARD OF TRUSTEES

## 2023 - 2024

### OFFICERS

#### Co-Presidents:

Steven Ushakov, Dana Cummings

#### Co-Past Presidents:

Heidi Whipple

#### Treasurer:

Kendra Christiana

#### Secretary:

Anita Long

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## ZONE REPS

#### Zone 1 Rep (St. Albans Area):

Anita Long

#### Zone 2 Rep (NEK):

Jean McKenny, Heidi Whipple, Lara White

#### Zone 3 Rep (Burlington Area):

Dana Cummings, Erica Di Vece

#### Zone 4 Rep (Montpelier Area):

Steven Ushakov

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Kendra Chrisitiana

#### Zone 6 Rep (Springfield Area):

Brendan Scribner

#### Zone 7 Rep (Brattleboro Area):

Michelle Page, Deborah Serafino

#### Zone 8 Rep (South of Rutland):

Ali Kennedy

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#### NCTM/NCSM Rep:

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#### ATMNE Rep:

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#### Math Fair Director:

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#### Equity and Inclusion Rep:

Michelle Page

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Ali Kennedy

# WHO IS VCTM?

## VCTM MISSION

Building a math educators community, by facilitating conversation and sharing resources around best practices to engage student learning throughout the state of Vermont while strengthening connections with state and national organizations.

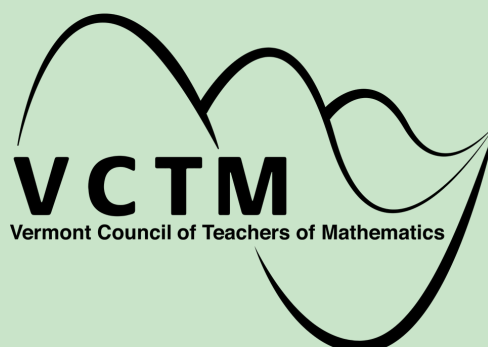
## BECOME A ZONE REP

Elected to a 1 year term during the Business Meeting portion of the VCTM Annual Conference. Thursday, 4/11 in Castleton this year OR Appointed by the VCTM to fill the remainder of the term of a vacant position.

Indicate your interest by emailing [VCTMPresident@gmail.com](mailto:VCTMPresident@gmail.com) or contacting a current VCTM Board Member.

## WHAT ZONE REPS DO

- Attend and Participate in Board Meetings
- Annual Summer Retreat - Full Day, in person. Much of the focus is on setting goals for the upcoming academic year.
- Virtual Board Meetings - most months during the school year. Currently the first or second Thursday of the month, 5:30-7:00. Much of the focus is on the work and progress towards fulfilling our mission and accomplishing the goals set at the summer retreat.
- Volunteer to complete tasks and plan events
- Join and lead committees. Current/recent committees: Math Fair, Conference, Communication and Outreach, Equity and Inclusion Committee
- Promote VCTM sponsored events
- Seek out needs of zone members
- Support increased collegiality in zone



# VCTM CONFERENCE SCHEDULE

	ROOM 1	ROOM 2	ROOM 3	ROOM 4
8:30 A.M. - 9:00 A.M.	REGISTRATION AND WELCOME			
KEYNOTE 9:00 A.M. - 10:00 A.M.	KEYNOTE PRESENTATION: WHAT IS POWERFUL MATH FOR OUR STUDENTS? Megan Staples Associate Professor, Neag School of Education, UConn and PI CT Noyce Math Teacher Leaders Program			
SESSION 1 10:10 A.M. - 11:00 A.M.	EQUITY-DRIVEN FEEDBACK IN THE MATH CLASSROOM: EMPOWERING ALL STUDENTS  Elly Blanco-Rowe Pre K - 2, 3 - 5, 6 - 8	CROSS DISTRICT COLLABORATION AND PLC BUILDING IN SMALL RURAL COMMUNITIES  Courtney Sobanski & Jessica Jané 6 - 8, 9 - 12	ENGAGING AND PREPARING HIGH SCHOOL MATHEMATICS  James Gore 6 - 8, 9 - 12	AN INTEGRATED APPROACH TO MATHEMATICS IN CTE  Diane Berman & Antone Bosnich 9 - 12
SESSION 2 11:10 A.M.- 12 P.M.	HOW WE GRADE IN A THINKING CLASSROOM  Tim Brzezinski Pre K - 2, 3 - 5, 6 - 8, 9 - 12, HE	BUILDING A THINKING CLASSROOM + MATH MENU + INTERVENTION OPPORTUNITIES = SUCCESS FOR ALL!  Paige Emory & Lindsay Anderson 3 - 5, 6 - 8	BALANCING PASSIONS AND PROFICIENCIES  Steven Ushakov 9 - 12	MODELS AND MANIPULATIVES IN THE SECONDARY CLASSROOM  Tara Sharkey 6 - 8, 9 - 12
12:00 P.M. - 1:00 P.M.	LUNCH			
SESSION 3 1:10 P.M. - 2:00 P.M.	INCREASING EQUITY THROUGH INCLUSIVE AND DIFFERENTIATED PRACTICES  Heidi E. Whipple, & Jennifer Montgomery Pre K - 2, 3 - 5, 6 - 8	DISRUPTING STATUS AND HIGHLIGHTING BRILLIANCE: CULTIVATING IDENTITY IN A THINKING CLASSROOM  Amy Chang 3 - 5, 6 - 8	STRATEGIES TO PROMOTE DISCOURSE IN A THINKING CLASSROOM  Mark Jones 6 - 8	EDUCATIONAL COST SHARING FORMULAS: HOW STATES DISTRIBUTE FUNDING FOR SCHOOLS  Toby Way & Megan Staples 9 - 12
2:10 P.M. - 2:30 P.M.	VCTM BOARD MEETING AND SNACK BREAK			
SESSION 4 2:40 P.M. - 3:30 P.M.	PROACTIVE TEACHING APPROACHES TO PROMOTE INCLUSION AND LESSON FAMILY MATH TRAUMA  Erica Di Vece & Melanie Cote Pre K - 2, 3 - 5	HOW DO WE MEASURE UP?  Jean McKenny Pre K - 2, 3 - 5, 6 - 8, 9 - 12, HE	STARTING WITH SEQUENCES  Michelle Page 6 - 8, 9 - 12	5+1 PRACTICES IN A THINKING CLASSROOM  Brendan Scribner K - 6

# KEYNOTE: WHAT IS POWERFUL MATH FOR OUR STUDENTS?

Math is powerful. Math knowledge is power. Yet large numbers of students (and adults!) believe their mathematics education is not powerful. In this talk, we will explore what a powerful mathematics education might look like. We consider a powerful mathematics education in light of present and future demands of students as they seek to powerfully navigate their personal, civic, and professional lives.

## KEYNOTE SPEAKER: MEGAN STAPLES

ASSOCIATE PROFESSOR, NEAG SCHOOL OF EDUCATION, UCONN  
AND PI CT NOYCE MATH TEACHER LEADERS PROGRAM

Megan Staples is an Associate Professor of mathematics education in the Neag School of Education at the University of Connecticut. She is passionate about ensuring math classrooms are respectful, engaging places for all students, and that mathematics education provides opportunities for students to develop the mathematical skills and knowledge needed for full participation in their personal, civic, and professional lives.



# SESSION 1

10:10 A.M. - 11:00 A.M.

## EQUITY-DRIVEN FEEDBACK IN THE MATH CLASSROOM: EMPOWERING ALL STUDENTS

Elly Blanco-Rowe  
Pre K - 2, 3 - 5, 6 - 8

This interactive workshop, tailored for mathematics educators in grades K-8, is designed to empower participants with the knowledge and practical strategies needed to provide equitable feedback aligned with math standards. In today's diverse classrooms, ensuring that every student receives feedback that supports their mathematical growth is paramount.

## CROSS DISTRICT COLLABORATION AND PLC BUILDING IN SMALL RURAL COMMUNITIES

Courtney Sobanski & Jessica Jané  
6 - 8, 9 - 12

In this session we will discuss the challenges and opportunities of working in small schools and how to build and foster a collaborative working environment in both the same district and across other small districts. We will discuss protocols, resources, tips and tools for implementation of a PLC and peer observations. In addition, we will share some of our own success stories using this protocol and how this cross district collaboration helped improve our own teaching practices and established positive peer- to- peer support within our districts.

## ENGAGING AND PREPARING HIGH SCHOOL MATHEMATICS

James Gore  
6 - 8, 9 - 12

In this workshop, we'll work on preparing your students for a HS math classroom and what can be done to facilitate learning when students present issues beyond our control. We will discuss and examine strategies to get your student's minds back to their academic tasks and eager to take on challenges. We will not just look at how students feel anxious about Math but also look at designing tasks that will encourage and empower students to feel better about math without watering down the rigor required for students to be successful.

## AN INTEGRATED APPROACH TO MATHEMATICS IN CTE

Diane Berman & Antone Bosnich  
9 - 12

In this session, mathematics teacher, Diane Berman will showcase some of the work she has done within the programs. Diane and Tony will speak about the need for flexibility as the projects change from year to year. Diane views her position as one of service to the programs, moving away from worksheets and towards a truly integrated approach where the activities are directly linked to the work the students are doing in program. This approach tends to garner more excitement and is able also to touch on complex math ideas.



# SESSION 2

11:10 A.M. - 12:00 P.M.

## HOW WE GRADE IN A THINKING CLASSROOM

Tim Brzezinski

Pre K - 2, 3 - 5, 6 - 8, 9 - 12, HE

In this session, we will facilitate an in-depth analysis of key elements from chapter 14 from Peter Liljedhal's book, "Building Thinking Classrooms". We will explore how teachers can begin to transition from points- based grading to standards- based grading in a painless fashion. In addition, participants will be given time to copy, interact with, and customize specially made Google Sheet that automates student grades exactly the way Peter describes in his text.

## BUILDING A THINKING CLASSROOM + MATH MENU + INTERVENTION OPPORTUNITIES = SUCCESS FOR ALL!

Paige Emory & Lindsay Anderson  
3 - 5, 6 - 8

Mathematical Engagement for the mind and body + Perseverance + decreased math anxiety + improved test scores + increased confidence and problem solving strategies. Using these initiatives we have discovered ways to make it all happen. We would like to share our journey with you on how we organized our schedule, optimized our time with students, and how we are working towards all of these goals. You will leave with resources that you can use in your classroom that will put you on your own path to success.

## BALANCING PASSIONS AND PROFICIENCIES

Steven Ushakov

9 - 12

How do we ensure that each and every student can achieve proficiency while also seeing themselves and others in the curriculum? How do we ignite students interests equitably? How do we give students agency in the learning process? Let's answer these questions together and walk away with an urge to meet the needs of our young mathematicians.

## MODELS AND MANIPULATIVES IN THE SECONDARY CLASSROOM

Tara Sharkey

6 - 8, 9 - 12

Manipulatives and models are not only for elementary students! Learn how to make abstract math concepts more concrete for middle school and high school students. Play with bar models, algebra tiles, pictures, and virtual tools to find ways to help students build conceptual understanding of expressions, equations, and systems of equations. Learn how these tools can increase engagement and thinking, and decrease the need for lecture and student mimicking. This session will be hands-on, fun, and will give you practical strategies to try in your classroom next week.

# SESSION 3

1:10 P.M. - 2:00 P.M.

## INCREASING EQUITY THROUGH INCLUSIVE AND DIFFERENTIATED PRACTICES

Heidi E. Whipple, M.A., M.S.T.  
& Jennifer Montgomery  
Pre K - 2, 3 - 5, 6 - 8

In this session, participants will explore systems and structures to increase access to universal math for all learners guided by current research and the experiences of the presenters. Participants will explore equitable teaching practices, with many classroom examples, related to inclusive and differentiated shifts that can be implemented in their classrooms.

## DISRUPTING STATUS AND HIGHLIGHTING BRILLIANCE: CULTIVATING IDENTITY IN A THINKING CLASSROOM

Amy Chang  
3 - 5, 6 - 8

The pedagogical moves of Building Thinking Classrooms contain paradigm shifts that can center the voices of students who have been overly harmed by our educational system. By viewing student reflections as data, we can see new stories begin to emerge. In this session, we will analyze street data from students about their experience in a TC to look for evidence that implementing BTC pedagogies is distributing power and highlighting brilliance, allowing student agency to emerge.

## STRATEGIES TO PROMOTE DISCOURSE IN A THINKING CLASSROOM

Mark Jones  
6 - 8

This session will incorporate many ideas from the book Building Thinking Classrooms while also modeling ways to facilitate meaningful mathematical discourse with middle school students. Teams will be visibly randomized, instructions will be verbal, and the task will be completed on vertical whiteboards. Participants will experience strategies that promote discourse and student thinking while working through a math task. Session closure will be a whole group discussion of solutions, teaching strategies, and how discourse happened.

## EDUCATIONAL COST SHARING FORMULAS: A MATH LESSON ON SCHOOL FUNDING AND FAIRNESS

Toby Way, Kaitlyn Seeto & Megan Staples 9 - 12

Math shapes our worlds in ways we don't always see. Educational funding is one of them. Each state has an approach for distributing state funds to support education. As with any use of resources that gives different amounts to different constituents, a key question math can help us think about is: Is this fair? In this session, we learn a bit about state-level funding, explore states' formulas, and use mathematics and other tools to explore questions of fairness in school funding.



# SESSION 4

2:40 P.M. - 3:30 P.M.

## PROACTIVE TEACHING APPROACHES TO PROMOTE INCLUSION AND LESSON FAMILY MATH TRAUMA

Erica Di Vece & Melanie Cote  
Pre K - 2, 3 - 5

Many of the families in our learning communities have experienced math trauma at some point in their learning journey. Knowing that research supports family engagement to student success we aim to support both student and family in our approach. In this session, we will show you how to support all families to understand that math is in all of our worlds and it is accessible for all learners. We aim to proactively change the narrative for families to end the trauma cycle through positive and engaging math experiences.

## HOW DO WE MEASURE UP?

Jean McKenny  
Pre K - 2, 3 - 5, 6 - 8, 9 - 12, HE

The session will begin by briefly examining a few educational statistics assessing where we stand and where we fall short. It will then share some information about efforts that are being made to remedy some of the shortfalls. The presenter hopes that this will be a truly interactive session and that all participants will contribute to sharing information and identifying ideas and information about programs for improvement.

## STARTING WITH SEQUENCES

Michelle Page  
6 - 8, 9 - 12

Sequences and patterns are all around us. They provide a key foundational understanding Linear and Non-Linear functions. In this session, participants will engage with Arithmetic and Geometric Sequences, seeing how they can be an excellent way to begin an Algebra 1 course. Participants will use the multiple representations of functions to explore these patterns. Group work and Thinking Classroom models will be used throughout the presentation.

## 5 + 1 PRACTICES IN A THINKING CLASSROOM

Brendan Scribner  
K - 6

Join me as we model and explore using Exemplars performance tasks framed within a "Thinking Classroom." We'll practice launching a task, and understanding how to mobilize thinking using random groups and vertical thinking spaces, all while practicing the 5 + 1 Practices for Orchestrating Productive Discussions. I'll offer the next steps, with sample performance tasks you can use in your classroom.



# ATMNE 2024 CONFERENCE

October 24 - 25, 2024

Sheraton Nashua

Nashua, New Hampshire