



2019-2020 Mathematics Workshops

For Elementary School Teachers

arranged by Joseph G. Rosenstein and Neil D. Cooperman

sponsored by the Association of Mathematics Teachers of New Jersey (AMTNJ)

with the cooperation of DIMACS, the Center for Discrete Mathematics and Theoretical Computer Science,

and the Rutgers Department of Mathematics

Overview:

Would you like to:

- Better prepare your students for NJ's statewide assessments?
- Engage your students in the lessons that you teach?
- Learn more mathematics content that is relevant to your classroom?
- Incorporate standards-based hands-on activities that motivate your students?
- Relate what you are doing in the classroom to "real world" applications?

Fourteen, highly interactive, one-day professional development workshops for elementary school math teachers are offered during the 2019-2020 school year. These workshops address a broad range of topics that are applicable to all curricula taught by grades K-5 teachers of mathematics.

These workshops are sponsored by the [Association of Mathematics Teachers of New Jersey](#) (AMTNJ) with the cooperation of [DIMACS](#) (the Center for Discrete Mathematics and Theoretical Computer Science) and the [Rutgers Department of Mathematics](#).

All workshops are connected to New Jersey's state standards in mathematics. All of these workshops will help you better prepare students for the statewide assessments and provide the resources and knowledge that you need to generate new and exciting standards-based lessons.

All workshops are full-day workshops at which participants will earn six (6) professional development hours. All workshops will take place on the Busch Campus of Rutgers University-New Brunswick. Participants may attend single or multiple workshops in any order.

The fee for each full-day workshop is \$205 (\$10 discount for each online registration). Discounts are available for multiple registrations on a single purchase order. Workshop registrations include eMembership in AMTNJ through December 31, 2020.

Although some workshops address overlapping issues, teachers who attend multiple workshops will benefit from experiencing the different approaches workshop leaders have to helping students meet the challenges of the state standards and assessments. Our instructors are among the most experienced and respected workshop leaders in the state. The workshop topics are based on feedback and recommendations from New Jersey teachers and administrators.

You will leave these workshops with valuable tools to motivate your students, stimulate their curiosity, and promote a more positive attitude towards mathematics.

Workshop Titles (in chronological order):
(scroll down for workshop descriptions in alphabetical order)
(all workshops begin at 9:00 am)

- **Building a Culture of Sense Making, Grades 2-5**
Date: Friday, November 15, 2019 (Code: W-11-15-19)
Presenter: Alison Nass
- **Differentiating Instruction in Math, Grades 3-5**
Date: Monday, December 2, 2019 (Code: W-12-02-19)
Presenter: Judith T. Brendel
- **Developing Number Concepts and Number Sense, Grades K-2**
Date: Friday, December 6, 2019 (Code: W-12-06-19)
Presenter: Makoto Yoshida
- **Making Meaning of Fractions, Grades 3-5**
Date: Wednesday, December 11, 2019 (Code: W-12-11-19)
Presenter: Mark Russo
- **Multiplication and Division Concepts and Development of Calculation Fluency, Grades 3-5**
Date: Friday, January 10, 2020 (Code: W-01-10-20)
Presenter: Makoto Yoshida
- **How to Use NAEP in the Classroom, Grades 4-12**
Date: Friday, January 17, 2020 (Code: W-01-17-20)
Presenter: Liz Marquez
- **Intervention Strategies for Struggling Learners in Mathematics, Grades 3-5**
Date: Monday, January 27, 2020 (Code: W-01-27-20)
Presenter: Irina Lyublinskaya
- **Equitable Mathematics Instruction and Teaching Mathematics for Social Justice, Grades K-12**
Date: Thursday, January 30, 2020 (Code: W-01-30-20)
Presenter: Mark Russo
- **Tips for Math Coaches, Math Supervisors, and Math Leaders, Grades K-12**
Date: Wednesday, February 5, 2020 (Code: W-02-05-20)
Presenter: Angelo DeMattia
- **Number Sense, Fluency, & Operations in the 2-5 Classroom, Grades 2-5**
Date: Monday, February 10, 2020 (Code: W-02-10-20)
Presenter: Debra Gulick
- **Visualizing Problem Solving through Proportional and Spatial Reasoning, Grades 3-5**
Date: Thursday, February 20, 2020 (Code: W-02-20-20)
Presenter: Angelo DeMattia
- **Essential Understanding of Fractions and Operations with Fractions, Grades 3-5**
Date: Tuesday, March 3, 2020 (Code: W-03-03-20)
Presenter: Irina Lyublinskaya

- **The Math Workshop Model, Grades 2-5**
Date: Thursday, March 19, 2020 (Code: W-03-19-20)
Presenter: Andrea Bean
- **Differentiated Instructional Strategies for Teaching Math, Grades K-6**
Date: Friday, April 24, 2020 (Code: W-04-24-20)
Presenter: Jennifer Goforth

Workshop Descriptions (in alphabetical order):

- **Building a Culture of Sense Making, Grades 2-5**

Date: Friday, November 15, 2019 (Code: W-11-15-19)
Time: 9:00 am – 3:30 pm
Presenter: Alison Nass
Audience: Grades 2-5 Mathematics Teachers and Supervisors

Sense making isn't something we can just tell students to do and assume it will happen automatically. How does sense making become part of the fabric of classroom culture? The first standard for mathematical practice involves making sense of problems. At times, we provide too much of a scaffold, which may lead to learned helplessness for our students. In this session, we will explore different routines and strategies that create a culture of sense making and provide the right support when students are presented with word problems. These are strategies that are ready to implement across the spectrum of grades 2-5, including special education settings. One strategy will include numberless word problems in which we will focus on the work of Brian Bushart.

- **Developing Number Concepts and Number Sense, Grades K-2**

Date: Friday, December 06, 2019 (Code: W-12-06-19)
Time: 9:00 am – 3:30 pm
Presenter: Makoto Yoshida
Audience: Grade K-2 Mathematics Teachers and Supervisors

In this session, teachers will learn how to develop a strong number sense and reliable calculation skills in their young students. They will learn ways to help students firmly establish cardinality by demonstrating meaningful counting to quantify totals, while understanding that numbers to 10 are composed of smaller parts. Then, teachers will discuss how to develop calculation strategies and the skills of addition and subtraction up to 10 and 20. From this base, they will learn how to help students develop a deep flexible understanding of multi-digit addition and subtraction algorithm calculations. Lastly, they will learn a system for targeted and tailored student practice, including how to assess systematically students' progress toward developing fluency. The session will engage teachers in activities and games to help students develop fluency in these basic but important calculations.

- **Differentiated Instructional Strategies for Teaching Math in Math, Grades K-6**

Date: Friday, April 24, 2020 (Code: W-04-24-20)
Time: 9:00 am – 3:30 pm
Presenter: Jennifer Goforth
Audience: Grades K-6 Mathematics Teachers and Supervisors

This workshop is focused on differentiation, including strategies for teaching math to classified students, how to apply these strategies and how to anticipate issues.

- **Differentiating Instruction in Math: "It's not as hard as you think!", Grades 3-5**

Date: Monday, December 2, 2019 (Code: W-12-02-19)
Time: 9:00 am – 3:30 pm
Presenter: Judith T. Brendel
Audience: Grades 3-5 Mathematics Teachers and Supervisors

How can we, as caring, dedicated professional educators, teach students at different levels of understanding and backgrounds at the same time? Can we realistically meet the needs of each student while meeting expectations of NJSL (New Jersey Student Learning Standards)? Have fun while you learn and experience a range of effective instructional and learning strategies with specific activities to keep ALL students motivated, engaged, learning and succeeding. Yes, we can meet their needs. Leave with a wealth of ready-made original material to use now and with digital access to modify later. Participants are encouraged to bring a digital device such as a laptop or tablet.

- **Equitable Mathematics Instruction and Teaching Mathematics for Social Justice, Grades K-12**

Date: Thursday, January 30, 2020 (Code: W-01-30-20)

Time: 9:00 am – 3:30 pm

Presenter: Mark Russo

Audience: Grades K-12 Mathematics Teachers and Supervisors

This session will have two primary goals: (1) to consider equitable teaching practices that can help support students' mathematical identities and agency, and (2) to explore social justice topics that can be incorporated into mathematics curricula. Participants will explore lessons at various grade levels, and they will reflect on how to support equity and social justice work in their spheres of influence. Resources will be provided for ongoing support.

- **Essential Understanding of Fractions and Operations with Fractions, Grades 3-5**

Date: Tuesday, March 3, 2020 (Code: W-03-03-20)

Time: 9:00 am – 3:30 pm

Presenter: Irina Lyublinskaya

Audience: Grades 3-5 Mathematics Teachers, Mathematics Supervisors

In this session we will focus on the understanding of operations with fractions, including deep knowledge of why computation procedures work. We will use variety of contexts and models, and we will also analyze common misconceptions and inappropriate strategies students use to solve fractions problems.

- **How to Use NAEP in the Classroom, Grades 4-12**

Date: Friday, January 17, 2020 (Code: W-01-17-20)

Time: 9:00 am – 3:30 pm

Presenter: Liz Marquez

Audience: Grade 4-12 Mathematics Teachers, Mathematics Supervisors

NAEP stands for the National Assessment of Educational Progress or, more simply, The Nation's Report Card. Many teachers have never heard of NAEP and yet it has vast resources for educators. The workshop will familiarize teachers with those vast resources and how to use them to enhance classroom instruction and assessment.

- **Intervention Strategies for Struggling Learners in Mathematics, Grades 3-5**

Date: Monday, January 27, 2020 (Code: W-01-27-20)

Time: 9:00 am – 3:30 pm

Presenter: Irina Lyublinskaya

Audience: Grades 3-5 Mathematics Teachers, Mathematics Supervisors

In this workshop participants will learn about specific research-based recommendations to address the needs of struggling learners in math; discuss how to carry out each recommendation; review examples illustrating specific intervention strategies for different recommendations, and develop strategies based on these recommendations for teaching specific topics of elementary school mathematics.

- **Making Meaning of Fractions, Grades 3-5**

Date: Wednesday, December 11, 2019 (Code: W-12-11-19)

Time: 9:00 am – 3:30 pm

Presenter: Mark Russo

Audience: Grades 3-5 Mathematics Teachers, Mathematics Supervisors

This session will focus on the grades 3 - 5 fractions standards. We will discuss how to introduce key fractional ideas to students in a way that helps them make meaning for themselves, by connecting new ideas with prior knowledge. We will explore manipulatives and technology, discuss multiple ways to discover standard algorithms, and consider multiple representations as a tool to strengthen understanding.

- **Multiplication and Division Concepts and Development of Calculation Fluency, Grades 3-5**

Date: Friday, January 10, 2020 (Code: W-01-10-20)

Time: 9:00 am – 3:30 pm

Presenter: Makoto Yoshida

Audience: Grades 3-5 Mathematics Teachers, Mathematics Supervisors

In this session teachers will learn how to help students understand multiplication concepts, use strategies to develop multiplication tables, and practice strategically to become fluent. In addition, they will learn how to help students understand division concepts and the use of the inverse operation (multiplication) to find quotients. Teachers will study how a strong conceptual understanding of multiplication and division is the foundation for middle school mathematics (i.e., proportional relationships, proportion, ratio, and rate). This foundation includes understanding how to use models and standard algorithms for multi-digit multiplication and division calculation processes. Finally, teachers will learn a system of practice and assessment of students' progress toward fluency with multiplication and division. Through this session, teachers will learn many activities and games to help students develop the basic calculation skills and an assessment system for monitoring students' learning progress.

- **Number Sense, Fluency, & Operations in the K-5 Classroom, Grades 2-5**

Date: Monday, February 10, 2020 (Code: W-02-10-20)

Time: 9:00 am – 3:30 pm

Presenter: Debra Gulick

Audience: Grades 2-5 Mathematics Teachers, Mathematics Supervisors

During this session, we will explore ways to build number sense by building routines that ask students to take risks. Students build their number sense by estimating and revising their estimates with pictures, video, measurement and operations. Additionally, we will connect the visual and verbal representations of various addition, subtraction, multiplication and division algorithms, traditional and others, and understand how they are all connected. Strategies for communicating with parents will be shared.

- **The Math Workshop Model, Grades 2-5**

Date: Thursday, March 19, 2020 (Code: W-03-19-20)

Time: 9:00 am – 3:30 pm

Presenter: Andrea Bean

Audience: Grades 2-5 Mathematics Teachers and Supervisors

Are you looking for a new structure for math class? The Math Workshop model is a classroom model that incorporates all of the best practices for teaching. It provides structure for differentiation, small groups, incorporating rich tasks and stations. It will help incorporate more SEL into your class environment with Number Sense Routines and Reflection.

- **Tips for Math Coaches, Math Supervisors, and Math Leaders, Grades K-12**

Date: Wednesday, February 5, 2020 (Code: W-02-05-20)
Time: 9:00 am – 3:30 pm
Presenter: Angelo DeMattia
Audience: Grade K-12 Mathematics Teachers and Supervisors

How can Math teachers be supported on their journey to provide quality learning for their students? This workshop will help you to explore various support structures in attaining the above goal. If you are new to math leadership, this session will help clarify this enormous task and help you to gain confidence as where to begin – especially in supporting teachers in their implementation of the mathematical practices and understanding the intent of conceptual understanding and how it supports retention and procedural fluency. If you are experienced, this session will help you rethink the menu and polish your training. Ultimately, you will improve as a knowledgeable practitioner, capable of using your extensive math understanding and teaching experiences to help children from varied cultural backgrounds become convincing math learners. Time will be reserved – on a continual basis – for sharing leadership dilemmas, solutions, and ideas, as well as examining effective math lessons. Bring a laptop.

- **Visualizing Problem Solving through Proportional and Spatial Reasoning, Grades 3-5**

Date: Thursday, February 20, 2020 (Code: W-02-20-20)
Time: 9:00 am – 3:30 pm
Presenter: Angelo DeMattia
Audience: Grades 3-5 Mathematics Teachers and Supervisors

Help students remember their Math fluency well beyond their elementary school years. This workshop will help teachers develop more visually based lessons that will include the use of strip (or bar) models, double line models, and spatial reasoning models such as paper-folding. Research has shown that proportional and spatial thinking is a predictor of success in STEM, and that this emphasis will help students, including SE & ELL – make an effective transition from the concrete/visual to the later demands of middle/high school mathematics. The emphasis will be on applying the PAW process, a problem-solving strategy that employs: P is for Pictures, A is for Abstract, and W is for Words. Ample hands-on visual/spatial lessons will highlight the process that helps teachers to help students attain a higher level of achievement on PARCC Assessments as well as to gain a strong understanding of the Common Core Standards. Time will also be reserved for Number Talks (developing number sense) as well as sharing lesson ideas and your questions/concerns. Bring a laptop.

Registration Information

Payment Information

To encourage implementation at your school, we are offering discounts to schools or districts that send multiple registrations on a single purchase order and to individuals who sign up for four (4) or more workshops.

1-3 Workshop Registrations = \$205 each

4-9 Workshop Registrations (one or more individuals) = \$175 each (15% discount)

10 or more Workshop Registrations (one or more individuals) = \$155 (25% discount)

THERE IS A \$10 DISCOUNT FOR EACH ONLINE REGISTRATION. Payment still can be made via a purchase order provided that each attendee's registration has been submitted individually online. Online registration significantly reduces transcription errors on contact information.

Workshop fees include all materials.

Payment may be made by purchase order or personal check; purchase orders and/or checks should be made out to **AMTNJ (Association of Mathematics Teachers of New Jersey)** and mailed to the address below. Admittance to the

workshop may be denied if no payment method is submitted by the day of the workshop or if billing information is not completed.

Registration Information

You can register by:

Phone: (732) 788-1257 from Monday through Friday, from 9:30 a.m. to noon.

Online: <http://tinyurl.com/AMTNJ-DIMACS-2019-2020>

FAX: FAX Registration Form to (732) 399-5388, 24-hours a day.

Mail: Send Registration Form to:

AMTNJ/DIMACS K-12 Math Workshops
PO Box 366
Saddle River, New Jersey 07458

Questions: amtnj@juno.com

Please do not assume that your district is registering for you; they often fail to notify us that teachers are planning to attend. Please register with us and tell us that your district will be sending additional materials; we will then be able to send you a confirmation letter.

Once your registration is received, you will receive an email confirmation letter at least 10 days before your workshop; attached to this letter will be a map, directions, and parking information.

If you have not received a confirmation letter 10 days prior to your workshop, please call 732-788-1257 to confirm that your registration has been received and that the workshop will take place.

[Click here for Registration Form](#)

[Click here to Register Online](#)

Cancellation Policy

A full refund (minus a \$25 processing fee per registrant) will be issued to the appropriate party if this office is notified **in writing** at least five (5) business days prior to the workshop date. If you cancel within five (5) business days, or if neither you nor a substitute attend the workshop without notifying us, no refund will be issued.

All workshops are subject to cancellation for insufficient enrollment.

If you register less than one week before the conference, you may not be registered because of over enrollment or because the workshop has been canceled. Please contact our office to verify that your registration has been processed, that you are indeed registered, and that the workshop has not been canceled.

In case of any emergencies, please contact Neil Cooperman, DIMACS Coordinator at NCoop@att.net

To obtain information about other programs, call 732-788-1257 or visit the AMTNJ website at <http://www.amtnj.org>