



Arizona
Department of Education

MATH NEWSLETTER

Our goal is to provide engaging and meaningful learning opportunities and resources to support mathematical growth for teachers and students.

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ESS Math Highlights

Bios - ADE Math Team

MEET YOUR ADE TEAM:



Eboney McKinney

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Jenifer Fernandez

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Rob Hilliker

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Debbie Gordon

Presidential Award Coordinator

VISIT US ONLINE:

+ [The Arizona Department of Education](#)

✕ [Mathematics Professional Development](#)

÷ [Mathematics Resources](#)



GET THE MOST OUT OF YOUR TI-84 AND TI-SMART VIEW EMULATOR

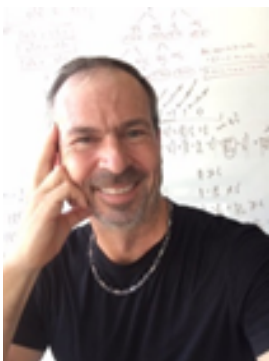
WHEN: FEB 6, 2021, 1PM-2:30PM

WHERE: REMOTE ZOOM MEETING

PRESENTER: TOM REARDON FROM TEXAS INSTRUMENTS

EARN: 1.5 HOURS OF PROFESSIONAL DEVELOPMENT CREDIT FOR RECERTIFICATION

Whether you are a TI-84 Plus veteran, or are picking up the TI-84 Plus CE for the first time, there are many valuable, often overlooked features that can enhance instruction and increase student understanding. Learn how to show graph and table simultaneously, save your favorite window, transformation graphing with lists and an app, store intersection point coordinates, function evaluation – composition – arithmetic, solve systems with an app, instant quadratic formula, graph piecewise functions, model curves mathematically with photos, and much more! See how to creatively use TI-SmartView as a teaching and learning tool. Hands-on experience and obtain colorful step-by-step PDFs and access to quick explanatory videos.



SPECIAL ONLINE 6 WEEK SERIES WITH JAMES TANTON

WHEN: FEBRUARY 5TH, 10AM-11:00AM

FEBRUARY 12TH, 10AM-11:00AM

FEBRUARY 19TH, 10AM-11:00AM

FEBRUARY 26TH, 10AM-11:00AM

WHERE: REMOTE ZOOM MEETING

PRESENTER: JAMES TANTON

EARN: PROFESSIONAL DEVELOPMENT CREDIT FOR RECERTIFICATION

8TH GRADE MATH AND ALGEBRA STUDENTS AND TEACHERS - JOIN US FOR JOYOUS MATH!

Arizona's own James Tanton, founder of the Global Math Project, is passionate about helping students and adults see and experience the human awe and joy of mathematics. Over six million people across the planet have played Exploding Dots. It's a stunning approach to arithmetic and algebra that helps students see the mathematics they thought they knew so well in astonishing new light. Students and teachers alike regularly describe this experience as "mind blowing."

Have James reveal the human story of pre-algebra and algebra and create for your students a transformed mindset for doing mathematics and engaging in confident problem-solving.

Teachers: Please register using this [link](#).

You will share the zoom link you'll receive with students, once you've registered.



K-12:

- [Whiteboard.fi](#)
- [Kahoot](#)
- [Quizizz](#)
- [Desmos](#)
- [Geogebra](#)
- [PhET Simulations](#)
- [Padlet](#)
- [Jamboard](#)
- [Would You Rather](#)
- [Which One Doesn't Belong](#)
- [Visual Patterns](#)
- [MathEqualsLove](#)
- [OpenMiddle](#)
- [MakingMathMoments](#)

ELEMENTARY:

- [ToyTheater](#)

MIDDLE & HIGH SCHOOL:

- [Graphing Stories](#)



JOIN US!
FEBRUARY

ELEMENTARY OFFICE HOURS:

Grades K-6

Tuesday, February 16 from 3:30–4:30 p.m.
with Q & A from 4:30–5:00 p.m.

[Register in advance for the Grades K-6 meeting.](#)

SECONDARY OFFICE HOURS:

Grades 7-12

Wednesday, February 17 from 3:30–4:30 p.m. with Q & A from 4:30–5:00 p.m.

[Register in advance for the Grades 7-12 meeting.](#)

The ADE Math Team has scheduled office hours to allow educators to meet together to network, problem-solve, and develop solutions to allow all Arizona teachers and students to continue to feel supported and to be successful. Grade-band meetings are provided for all math teachers, including special education teachers! These grade-band meetings will include opportunities for networking, problem solving, and sharing different implementation models. Office hours are one hour long with an additional 30 minutes at the end for a Q & A session.

Participants can earn one hour of professional development credit for each session attended. Note: accommodations must be requested at least one week in advance of each webinar.



Presidential Awardees receive a certificate signed by the President of the United States; a trip to Washington, D.C., to attend a series of recognition events and professional development opportunities; and a \$10,000 award from the National Science Foundation. They also join a network of award-winning teachers from across the country. The National Science Foundation administers PAEMST on the behalf of The White House Office of Science and Technology Policy.

WHEN: NOMINATION DEADLINE, MARCH 1ST, 2021

WHEN: APPLICATION DEADLINE, APRIL 1ST, 2021

WHO: ELEMENTARY (K-6) AND SECONDARY (7-12) TEACHERS

WHERE: APPLY DIRECTLY AT WWW.PAEMST.ORG

The National Science Foundation is currently accepting nominations and applications for the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) program. PAEMST are the highest honors bestowed by the United States government specifically for K–12 science, technology, engineering, mathematics, and/or computer science teaching. Anyone—principals, teachers, parents, students, or members of the general public—may nominate a teacher by completing the nomination form available on the PAEMST website. To submit a nomination, you will need the teacher's name, email address, and school contact information. If you know more than one teacher deserving of this award, you may submit more than one nomination.

ADDITIONAL LEARNING OPPORTUNITIES



Check out our [PD calendar](#) for upcoming opportunities to learn and earn certificate recertification hours.

Join great guests in the Math Teacher Lounge. The next episode of the [Math Teacher Lounge](#) with Bethany Lockhart Johnson and Dan Meyer is almost here. Visit the lounge to receive an alert for when the next episode drops with great guests such as Robert Berry, Francis Su, and many more! Get access now.

MATH
Teacher
LOUNGE



Bookmark our [Professional Development webinar page](#) to view the series schedule and register for upcoming webinars.

FREE TUTORING FOR YOUR STUDENTS!

If your students are struggling in the evenings when you are not available, there is help! They can access a FREE University of Arizona college math tutor by simply logging on using a link. Please see the [online schedule](#). Thank you to the CRR for coordinating this.

**FREE
TUTORING!**



GET INVOLVED!

JOIN A PROFESSIONAL MATH ASSOCIATION

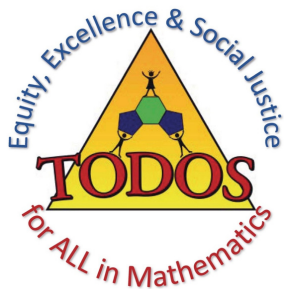


Free membership is available to all Arizona Teachers. Click on [link](#) to activate or update your membership!

There are two types of memberships available, Essential and Premier. Visit the [NCTM website](#) to find which one is the best fit for you.



NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS



Learn more about [TODOS](#)! Their mission is to advocate for equity and high quality mathematics education for all students— in particular, Latina/o students.

If you are a math leader and are looking to collaborate and share your expertise with other Arizona math leaders, then this is the group for you! Visit the [Arizona Math Leaders website](#) for more information.



GREAT READING!

6 ways to embrace the messiness of math education

BY MICHELE ISRAEL,
CONTRIBUTING WRITER, EDWEB
January 19th, 2021

Dr. Juli Dixon, Professor of Mathematics Education at the University of Central Florida shares these 6 thoughts to consider.

6 WAYS

1. Posting lesson objectives
2. Gradual release of responsibility
3. Scaffolding
4. Academic vocabulary
5. Neglecting to connect concepts and procedures
6. Small groups





[Exceptional Student
Services Website](#)

ALGEBRA TILES TRAINING, 4 PART SERIES

WHAT: ALGEBRA TILES PART 1: EXPLORATION OF ALGEBRAIC EXPRESSIONS

WHEN: MONDAY, FEBRUARY 1 FROM 3:30-5:00P.M.

[Register in advance for Algebra Tiles Part 1.](#)

In this webinar, we will explore the properties of virtual algebra tiles and the use of these tiles in simplifying expressions and adding and subtracting algebraic expressions.

WHAT: ALGEBRA TILES PART 2: EXPLORATION OF SUBSTITUTION AND SOLVING EQUATIONS

WHEN: MONDAY, FEBRUARY 8 FROM 3:30-5:00P.M.

[Register in advance for Algebra Tiles Part 2.](#)

In this webinar, we will explore the use of virtual algebra tiles to visualize substitution and to solve equations.

WHAT: ALGEBRA TILES PART 3: EXPLORATION OF ALGEBRA TILES IN MULTIPLYING

WHEN: BINOMIALS AND FACTORING QUADRATIC EQUATIONS

MONDAY, MARCH 1 FROM 3:30-5:00P.M.

[Register in advance for Algebra Tiles Part 3.](#)

In this webinar, we will explore the use of virtual algebra tiles to multiply binomials and to factor quadratics.

WHAT: ALGEBRA TILES PART 4: EXPLORATION OF ALGEBRA TILES IN COMPLETING THE SQUARE AND DIVIDING QUADRATIC EQUATIONS

WHEN: MONDAY, MARCH 8 FROM 3:30-5:00P.M.

[Register in advance for Algebra Tiles Part 4.](#)

In this webinar, we will explore the use of virtual algebra tiles to complete the square and to divide quadratics.

EARN: PARTICIPANTS CAN EARN 1.5 HOURS OF PROFESSIONAL DEVELOPMENT CREDIT FOR EACH SESSION ATTENDED.

Attendance at all sessions is recommended but not required. These sessions will not be recorded.

A computer or tablet with the ability to access Google slides is not required but is strongly recommended to enable full participation in the session.

Please contact [Jenifer Fernandez](#) with any questions.

THE ADE MATH TEAM



MEET YOUR DIRECTOR:

Eboney McKinney

Director K-12 Math Standards

Eboney.McKinney@azed.gov

Eboney McKinney is the Director of Mathematics and Educational Technology for the Arizona Department of Education, Academic Standards Unit. Prior to that she was a Math Program Specialist for ADE in Exceptional Student Services. Before coming to the ADE she spent 2 years as a Student Achievement Teacher and 9 years in the Sierra Vista Public School District as a Teacher Leader and education advocate. As a classroom teacher she taught grades 4, 5, and 6, while advocating for her students and colleagues as President of her local association and as a board member of the AZ Education Association and the AZ Association of Teachers of Mathematics. She also facilitated math professional development with the IMPACTS program through the University of Arizona Center for Recruitment and Retention of Mathematics Teachers from 2016-2019, as an IMPACTS Teacher Leader. She is an active member of the following math organizations: AML, NCSM, ASSM, AATM and NCTM. She earned her undergraduate degree in Elementary Education from Prescott College and her graduate degree in Mathematics Teaching from Mount Holyoke College. She is currently finishing up a certificate program from MHC in Professional Development and Coaching.



Laurel Cherry

Math Specialist

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Laurel comes to the ADE with over 20 years of experience in mathematics education. She spent most of her time as a secondary math teacher and has worked as co-taught teacher in both California and Arizona. She has created and presented professional development for schools, districts and conferences all over the country. She is passionate about sharing practices on how to get students more involved in visual, kinesthetic and hands-on learning.



Jenifer Fernandez

ESS Math Specialist

Jenifer.Fernandez@azed.gov

Jenifer H. Fernandez is the Math Program Specialist for the Arizona Department of Education, Exceptional Student Services in the downtown office of Tucson, Arizona. She obtained both her undergraduate and graduate degrees from The University of Arizona in Education and Mathematics Teaching and Leadership. She is dual-certified in Elementary and Secondary Mathematics with a Mathematics Specialist endorsement. Prior to her position at ADE, she was a mathematics teacher in the Tucson area for 15 years. Her years of teaching experience range from elementary grades through high school math. She has also been a math professional development facilitator at the local, state, and national level since 2006. She is an active member of several math organizations including AML, AATM, ASSM, NCSM, and NCTM. Her philosophy is rooted in that all students are capable of learning mathematics and it is our responsibility as leaders to empower educators to create a positive culture and mindset around mathematics education.



Rob Hilliker

ESS Math Specialist

Rob.Hilliker@azed.gov

Rob served eleven years as a high school math teacher and four years in leadership positions as a math coach and district math specialist/new teacher induction and technology integration coach. He has provided mathematics professional learning to special and general education teachers at a site and district level as well as through the University of Arizona's Center for Recruitment and Retention Mathematics Teacher Workshops. He also has five years of co-teaching experience at the secondary level and has provided professional learning to teachers so that secondary students with disabilities could effectively engage in grade level standards.