



Implementing Georgia's K-12 Mathematics Standards

EFFECTIVE TEACHING
STRATEGIES



GEORGIA'S NEWLY ADOPTED
MATHEMATICS STANDARDS



IMPLEMENTATION
PLANS



| JULY |
11-13 | 2023

WELCOME!

Greetings!

Welcome to the Georgia Department of Education's Annual MathCON! The math team welcomes you to our very first in-person summer session. We have traveled across the state to help align the goals for implementing Georgia's K-12 Mathematics Standards and we have had a blast! The focus of the conference is to help support efforts to provide the best education for Georgia students and provide tools for teachers and leaders to be successful in implementing the new standards in the fall.

The State Board of Education unanimously approved State School Superintendent Richard Woods' recommendation to adopt Georgia's K-12 Mathematics Standards. The 2021-2022 and 2022-2023 school years have been dedicated to teacher training on the new standards, with implementation in the classroom with students scheduled for 2023-2024.

The Georgia K-12 Mathematics Standards were developed here in Georgia drafted by mathematics teachers with input from educational leaders, parents, students, business and industry leaders, and community members. These standards were designed to provide a strong foundation beginning in the early grades with a focus on being clear, understandable, and present a reasonable amount of content each year. Students can now truly master concepts through a concept-based approach, rather than simply being quickly exposed to them. The standards focus on thoughtful concept development and real-world applications while maintaining a strong emphasis on computational and procedural fluency.

It is our hope that you are able to implement Georgia's K-12 Mathematics Standards with the resources and professional learning from this conference as we embark on this journey together.

Mathematically yours,

The GaDOE Mathematics Team

GREETINGS



STATE OF GEORGIA
OFFICE OF THE GOVERNOR
ATLANTA 30334-0090

Brian P. Kemp
GOVERNOR

July 11, 2023

GREETINGS:

On behalf of the state of Georgia, allow me to extend my warmest regards to you as you welcome over 1,000 teachers and leaders to participate in the 3rd Annual MathCON.

Please allow me also to welcome your distinguished guests, honorees, their families, and other attendees.

I send my best wishes for a productive event!

Sincerely,

A handwritten signature in black ink that reads "B.P.K." in a stylized, cursive font.

Governor Brian P. Kemp

GREETINGS



July 11, 2023

CITY OF ATLANTA

55 TRINITY AVE, S.W.
ATLANTA, GEORGIA 30303-0300

TEL (404) 330-6100

Greetings:

As the 61st Mayor of Atlanta, I am pleased to join the Georgia Department of Education (GaDOE) in welcoming attendees of the 3rd Annual GaDOE MathCON.

The City of Atlanta proudly welcomes the GaDOE MathCON. This annual conference brings together dedicated math educators, administrators, and professionals from across Georgia to examine mathematics educational standards.

As teachers, counselors, and administrative staff prepare for the upcoming 2023-2024 school year, you all gather to assist them in preparing for the changes in K-12 mathematics standards statewide. Education is crucial, and your presence at this event demonstrates a commitment to ensuring our educators and students are equipped with the tools they need to be successful.

Thank you for all you do. We are grateful that you chose to host this innovative conference in Atlanta. I commend the dedication and commitment of the Georgia Department of Education (GaDOE) and the incredible impact you have made in our communities as you educate and prepare young people for their futures.

On behalf of the people of Atlanta, I extend my best wishes for a successful and memorable conference.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andre Dickens'.

Mayor Andre Dickens



ANDRE DICKENS
MAYOR

GREETINGS



Educating Georgia's Future

July 11, 2023

Dear MathCON Attendees:

Welcome to the Georgia Department of Education's annual MathCON, Implementing Georgia's K-12 Mathematics Standards!

The new mathematics standards are truly Georgia-developed and Georgia-grown. Georgia mathematics teachers drafted them with input from educational leaders, parents, students, business and industry leaders, and community members. As a result, the design of the standards provides a strong foundation beginning in the early grades.

They include clear and understandable language for teachers, students, and parents, empowering students and teachers and allowing parents to be more involved in their child's education. In addition, they preserve and protect teachers' ability to use standard math methods. There are no mandates from the state to use specific strategies. Therefore, students can solve problems in a way that makes sense to them, and parents are not disenfranchised or unable to be involved, allowing them to help their children with math lessons.

The new standards are age- and developmentally appropriate and remain laser-focused on the fundamental skills students need to prepare for the future. In addition, they address teacher concerns regarding presenting a reasonable amount of content each year, allowing time for you to teach content and students to master concepts.

I hope you take this opportunity to expand your knowledge, collaborate with education leaders from across the state, and leave inspired and ready to succeed in the 2023-2024 school year.

Sincerely,

Richard Woods
State School Superintendent



Richard Woods
STATE SUPERINTENDENT

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AGENDA AT A GLANCE

Tuesday, July 11, 2023

8:00 AM	Registration
8:45 AM	Welcome
9:20 AM	Opening Keynote
10:20 AM	Transition
10:30 AM	Content Sessions
12:00 PM	Lunch
1:00 PM	Burst Sessions
1:40 PM	Transition
1:45 PM	Content Sessions
3:15 PM	Closing Session

Wednesday, July 12, 2023

8:00 AM	Registration
8:45 AM	Welcome
9:20 AM	Opening Keynote
10:20 AM	Transition
10:30 PM	Content Sessions
12:00 PM	Lunch
1:00 PM	Burst Sessions
1:40 PM	Transition
1:45 PM	Content Sessions
3:15 PM	Closing Session

Thursday, July 13, 2023

8:30 AM	Registration
9:00 AM	Welcome
9:20 AM	Opening Keynote
10:20 AM	Transition
10:30 AM	Content Sessions
12:00 PM	Lunch
1:00 PM	Burst Sessions
1:40 PM	Transition
1:45 PM	Content Sessions
2:55 PM	Transition
3:00 PM	Closing Session/Door Prizes



**Content
Breakout
Sessions**

Door Prizes

**Instructional
Strategies**

**Mathematics
Pathways
Planning**

& more!

HAVING FUN AT MATHCON!

Mathematics Carnival

Join us as we bring a
mathematized journey to life
during the MathCON 2023
[Mathematics Carnival](#).

Engage in the MathCON 2023
[Scavenger Hunt](#) to enter a
chance to win a giveaway for
classroom visit from the GaDOE
Mathematics team!

MathCON Scavenger Hunt

Poster Talk

[Sign up](#) to lead a Poster Talk and
share nuggets of wisdom from
your classroom, school, or district.
Time: 8:00 am – 8:45 am

Share your learning experiences!

Tweet using the handle:

[@GaDOEMath](#)

Hashtags:

[#MathCON2023](#)
[#GaDOEMathCON](#)

Share what you are learning by posting a
message on Twitter. Thank you for SHARING!

IMPORTANT INFORMATION

Pathways at a Glance

Please take a moment to choose your pathway based on your current role.
You will find these markers to help determine the best sessions to attend.

COMPUTER SCIENCE	OPENING SESSION	COMPUTER SCIENCE CONTENT SESSION	COMPUTER SCIENCE BURST SESSION	COMPUTER SCIENCE CONTENT SESSION	CLOSING SESSION
MATHEMATICS TEACHER	OPENING SESSION	CHOOSE GRADE LEVEL OR COURSE CONTENT SESSION	BURST SESSION (CHOICE SESSION)	CHOOSE GRADE LEVEL OR COURSE CONTENT SESSION	CLOSING SESSION
MATHEMATICS TEACHER LEADER	OPENING SESSION	CHOOSE GRADE LEVEL OR COURSE CONTENT SESSION	BURST SESSION (CHOICE SESSION)	CHOOSE GRADE LEVEL OR COURSE CONTENT SESSION	CLOSING SESSION
ADMINISTRATOR	OPENING SESSION	ADMINISTRATOR & COUNSELOR PROFESSIONAL LEARNING	BURST SESSION (CHOICE SESSION)	ADMINISTRATOR & COUNSELOR PROFESSIONAL LEARNING	CLOSING SESSION
COUNSELOR	OPENING SESSION	ADMINISTRATOR & COUNSELOR PROFESSIONAL LEARNING	BURST SESSION (CHOICE SESSION)	ADMINISTRATOR & COUNSELOR PROFESSIONAL LEARNING	CLOSING SESSION

MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

REGISTRATION

8:00 – 8:45 AM

OPENING KEYNOTE

9:20 – 10:20 AM

Jon Orr



Kyle Pearce



As the Lead Curiosity Instigator at Make Math Moments, **Kyle** dedicates his efforts to spark curiosity and fuel sense-making in the students and educators he works with as the K-12 Mathematics Consultant for his school district. **Jon** is a practicing high school math teacher who draws on his experience sparking curiosity and fueling sense making with his students to ignite the moves of the teachers in his circle of influence at Make Math Moments. His passions lie in promoting the efforts of learning mathematics with his students and mathematics educators.

MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

COMPUTER SCIENCE

GASHA Go World Resources

Morning Session

Laura Evans

Explore how gamification can teach students number sense, creativity, determination, and problem-solving skills.

Computer Science & Math Integration

Afternoon Session

Craig Sapp

Learn how to integrate computer science (specifically coding) into math class.

COMPUTER
SCIENCE

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SCIENCE

GaDOE MATHEMATICS UPDATES

Dr. Lya Snell

Session Description: In this session, administrators and counselors will receive specific information to support the successful implementation of Georgia's K-12 Mathematics Standards. Participants will be able to learn from the Georgia Department of Education and ask detailed questions that support their implementation plan development.

COUNSELOR

ADMINISTRATOR

KINDERGARTEN – 2nd GRADE

Mary Dawkins & Seyoung Holte

Session Description: In this session, we will explore mathematics in the wonderful world of kindergarten through second grade. Participants will experience learning mathematics content through mathematical modeling. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

MATHEMATICS
TEACHER

MATHEMATICS
TEACHER LEADER

MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

3rd GRADE – 5th GRADE

Sarah Marshall & Estella Newkirt

Session Description: In this session, we will explore mathematics in the wonderful world of third through fifth grade. Participants will experience learning mathematics content through mathematical modeling. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

MATHEMATICS
TEACHER

MATHEMATICS
TEACHER LEADER

6th GRADE – 7th GRADE

Angie Brunson & Anne Gay

Session Description: In this session, we will explore mathematics in the wonderful world of sixth and seventh grade. Participants will experience learning mathematics content through mathematical modeling. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

MATHEMATICS
TEACHER

MATHEMATICS
TEACHER LEADER

8th GRADE – ALGEBRA: CONCEPTS & CONNECTIONS

Tiffany Evans & James Special

Session Description: In this session, we will explore mathematics in the wonderful world of eighth grade and Algebra: Concepts & Connections. Participants will experience learning mathematics content through mathematical modeling. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

MATHEMATICS
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TEACHER LEADER

MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

GEOMETRY: CONCEPTS & CONNECTIONS

Tynisha Robinson

Session Description: In this session, we will explore the exciting world of Geometry: Concepts & Connections. Participants will experience learning mathematics content through mathematical modeling. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

MATHEMATICS
TEACHER

MATHEMATICS
TEACHER LEADER

ADVANCED ALGEBRA: CONCEPTS & CONNECTIONS

Renee Owen

Session Description: In this session, we will explore the exciting world of Advanced Algebra: Concepts & Connections. Participants will have the opportunity to engage in learning mathematics content through mathematical modeling. We will use the newly revised units and learning plans as valuable resources throughout the session to facilitate this learning.

MATHEMATICS
TEACHER

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STATISTICAL REASONING, AP STATISTICS, & LINEAR ALGEBRA WITH COMPUTER SCIENCE APPLICATIONS

Kaycie Maddox & Torre Mills

Session Description: Statistical Reasoning is a critical focus of Georgia's K-12 Mathematics Standards. This session will focus on the senior-level high school mathematics courses. Participants will also learn more about the newly adopted standards for Statistical Reasoning and Linear Algebra with Computer Science Applications. College Board representatives will also provide specific information and updates related to AP Statistics.

MATHEMATICS
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MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

PRECALCULUS & AP PRECALCULUS

Suzette Weinhardt

Session Description: Participants will have the opportunity to engage in hands-on learning experiences that help them gain greater familiarity with Georgia's K-12 Mathematics Standards for Precalculus. Additionally, participants will receive specific professional learning from College Board on the new AP Precalculus Framework and receive resources to support their understanding of the AP Exam.

MATHEMATICS
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HIGH SCHOOL MATHEMATICAL MODELING PATHWAY

Denise Castleberry & Dr. Jacqueline Hennings

Session Description: Participants will continue to explore the high school Mathematical Modeling Pathway of courses which includes Advanced Financial Algebra, Advanced Mathematical Decision Making, College Readiness Mathematics (Capstone), and Mathematics of Industry & Government. The newly revised units and learning plans as will be used throughout the session to facilitate this learning.

MATHEMATICS
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CALCULUS, AP CALCULUS & ADVANCED CALCULUS COURSES

Tamaiko Chappell & Cori Colby

Session Description: Participants will have the opportunity to engage in rich learning tasks aligned to Georgia's K-12 Mathematics Standards for Calculus. The purpose of this session is to help teachers gain a greater understanding of the newly adopted Calculus course. Additionally, participants will receive specific professional learning from College Board on the AP Calculus Frameworks and receive resources to support their understanding of the AP Exams.

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MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

LUNCH BREAK

12:00 – 1:00 PM



BURST SESSIONS

1:00 – 1:40 PM

Math Play (K-12)

Dr. Karla Cwetna

Session Description: This burst session will provide an opportunity for mathematics teachers, teacher leaders, and administrators to engage in fun, hands-on activities to explore the world of mathematics through meaningful play and exploration.

ADMINISTRATOR

MATHEMATICS
TEACHER

MATHEMATICS
TEACHER LEADER

Making Math Moments with Students

Jon Orr & Kyle Pearce

Session Description: Learn more with Jon and Kyle as they seek to help leaders and teachers to Make Math Moments with students. Figure out ways to make math meaningful!

ADMINISTRATOR

MATHEMATICS
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Using Real-World Data to Integrate Math and Science

Judith Beccaro

Session Description: Want to find authentic science scenarios to use in your math class? Come to this session to learn strategies to incorporate FREE readily available real-world data for the math and science classrooms for 3rd – 8th grade.

COMPUTER SCIENCE

MATHEMATICS
TEACHER

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GaDOE Assessment Updates

Dr. Nijia Byrd & Dr. Jan Blose

Session Description: This session will provide assessment updates for all statewide testing programs from the GaDOE Assessment Team.

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MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

BURST SESSIONS

1:00 – 1:40 PM

Interdisciplinary Teaching for Elementary Math Teachers

Dr. Lenisera Barnes-Bodison

Session Description: Come and experience a journey of endless possibilities for students to gain a love of learning math through interdisciplinary challenges.

ADMINISTRATOR

MATHEMATICS
TEACHER

MATHEMATICS
TEACHER LEADER

Interdisciplinary Connections Units (6-12)

Felicia Cullars & Dr. John Pritchett

Session Description: Attendees will participate and explore the Mathematics Interdisciplinary Connections units for each secondary mathematics course to support content relevance with in-demand careers across Georgia while helping students understand how mathematics connects to the real world.

ADMINISTRATOR

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Elementary Mathematical Modeling

Denise Castleberry & Dr. Jacqueline Hennings

Session Description: Let's take a look at using mathematical modeling in our courses to promote student engagement and mathematical reasoning.

ADMINISTRATOR

MATHEMATICS
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Constellations Computer Science Carnival Experience

GT Constellations Center

Session Description: Do you want to promote Computer Science in your school? Learn how to make connections by participating in the CS Carnival experience. There will be exciting events such as a drone course and MakeCode arcade. No experience is required, just fun!

ADMINISTRATOR

COMPUTER SCIENCE

MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

BURST SESSIONS

1:00 – 1:40 PM

Embedded Student Learning Supports (K-12) Ye Na Parrett & Jenise Sexton

Session Description: Are you looking to provide real-time support for your students? This session will explore the embedded student learning supports within the mathematics instructional materials.

ADMINISTRATOR

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TEACHER LEADER

The Importance of Mathematics in STEM/STEAM Education Rontra Brown

Session Description: Explore the importance of the practices of mathematics in STEM/STEAM pedagogy and their applicability in the current and future workforce in this interactive session. Learn how to support students' ability to solve real world problems and gain knowledge through interdisciplinary connections.

COMPUTER SCIENCE

MATHEMATICS
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Trauma-Informed Instruction

Sheila McKeehan

Session Description: It is important to have an awareness of how to empathize with students' trauma and understand its affect on instruction in the classroom. This session will provide indicators and strategies for addressing trauma.

COUNSELOR

ADMINISTRATOR

MATHEMATICS
TEACHER LEADER

Exploring Georgia's Mathematical Practice Standard (K-12) Tiffany Dillard

Session Description: The participants will build on what they know about the mathematical practice standard by exploring the shifts from Georgia Standards of Excellence to Georgia's K-12 Mathematics Standards. They will ponder what students' behaviors should be evident in today's classrooms.

ADMINISTRATOR

MATHEMATICS
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Addressing Non-Academic Barriers

Bryan Smith

Session Description: All students have needs that are academic and non-academic. Non-academic needs can influence student achievement. Let's explore non-academic barriers and how to effectively address them.

ADMINISTRATOR

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MATHCON AGENDA

TUESDAY, JULY 11 – DAY 1

CLOSING SESSION

3:15 – 4:00 PM

Come join Jon and Kyle during the closing session to follow up with questions and answers. Be ready to receive important updates and information from day 1 of the conference.

Jon Orr



Kyle Pearce



MATHCON AGENDA

WEDNESDAY, JULY 12 – DAY 2

REGISTRATION

8:00 – 8:45 AM

OPENING KEYNOTE

9:20 – 10:20 AM

Dr. Talitha Washington



Dr. Talitha Washington is the inaugural Director of the Atlanta University Center (AUC) Data Science Initiative, a Professor of Mathematics at Clark Atlanta University and an affiliate faculty at Morehouse College, Morehouse School of Medicine, and Spelman College. She is the Director and lead principal investigator of the NSF-funded National Data Science Alliance (NDSA) and the President of the Association for Women in Mathematics. Her research interests include the applications of differential equations to problems in biology and engineering, as well as the development of nonstandard finite difference schemes to numerically solve dynamical systems. Dr. Washington is an in-demand speaker who enjoys sharing her expertise on applied mathematics as well as STEM diversity to a wide range of audiences.

MATHCON AGENDA

WEDNESDAY, JULY 12 – DAY 2

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

COMPUTER SCIENCE

CEISMIC K-12 Resources & Engagement

Morning Session

Alba Gutierrez

CEISMIC empowers teachers to advance students' interest and learning in STEM through model-effective, active, and inquiry-based pedagogy.

Integrated Computing

Afternoon Session

Dr. Lauren Margulieux

In this session participants will explore integrated computing in all disciplines.

COMPUTER
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EDUCATING THE WHOLE CHILD

Bryan Smith

Session Description: Educating the whole child means to acknowledge AND address non-academic factors that impact academic outcomes while expanding learning opportunities. This session will provide basic information to support efforts of educating the whole child.

COUNSELOR

ADMINISTRATOR

KINDERGARTEN – 2nd GRADE

Mary Dawkins & Seyoung Holte

Session Description: In this session, we will explore mathematics in the wonderful world of kindergarten through second grade. Participants will experience learning mathematics content through statistical reasoning. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

MATHEMATICS
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MATHCON AGENDA

WEDNESDAY, JULY 12 – DAY 2

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

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8th GRADE – ALGEBRA: CONCEPTS & CONNECTIONS

Tiffany Evans & James Special

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MATHEMATICS
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MATHCON AGENDA

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Tynisha Robinson

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ADVANCED ALGEBRA: CONCEPTS & CONNECTIONS

Renee Owen

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MATHEMATICS
TEACHER

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TEACHER LEADER

STATISTICAL REASONING, AP STATISTICS, & LINEAR ALGEBRA WITH COMPUTER SCIENCE APPLICATIONS

Kaycie Maddox & Torre Mills

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MATHCON AGENDA

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Suzette Weinhardt

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HIGH SCHOOL MATHEMATICAL MODELING PATHWAY

Denise Castleberry & Dr. Jacqueline Hennings

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MATHEMATICS
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CALCULUS, AP CALCULUS & ADVANCED CALCULUS COURSES

Tamaiko Chappell & Cori Colby

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MATHCON AGENDA

WEDNESDAY, JULY 12 – DAY 2

LUNCH BREAK

12:00 – 1:00 PM

BURST SESSIONS

1:00 – 1:40 PM

Math Play (K-12)

Dr. Karla Cwetna

Session Description: This burst session will provide an opportunity for mathematics teachers, teacher leaders, and administrators to engage in fun, hands-on activities to explore the world of mathematics through meaningful play and exploration.

Location:
B310

ADMINISTRATOR

MATHEMATICS
TEACHER

MATHEMATICS
TEACHER LEADER

Creating Engaging Desmos Activities Together (K-12)

Michael Wiernicki

Session Description: In this burst session, participants will learn some quick tips to create engaging Desmos activities.

Location:
B304

ADMINISTRATOR

MATHEMATICS
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TEACHER LEADER

Effective Mathematics Teaching Practices for Leaders

Kenneth Golden

Session Description: This session will guide your understanding of the Eight Effective Mathematics Teaching Practices as well how to manage them within your organization. Learn how to identify the practices within the classroom and how to facilitate them within the professional learning community.

Location:
B302

COUNSELOR

ADMINISTRATOR

MATHEMATICS
TEACHER

MATHEMATICS
TEACHER LEADER

A Roadmap to Interdisciplinary Teaching for Elementary Math Teachers

Dr. Lenisera Barnes-Bodison

Session Description: Come and experience a journey of endless possibilities for students to gain a love of learning math through interdisciplinary challenges.

Location:
B302

ADMINISTRATOR

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MATHEMATICS
TEACHER LEADER

MATHCON AGENDA

WEDNESDAY, JULY 12 – DAY 2

BURST SESSIONS

1:00 – 1:40 PM

Interdisciplinary Connections (6-12)

Felicia Cullars & Dr. John Pritchett

Session Description: Attendees will participate and explore the Mathematics Interdisciplinary Connections units for each secondary mathematics course to support content relevance with in-demand careers across Georgia while helping students understand how mathematics connects to the real world.

Location:
B305

ADMINISTRATOR

MATHEMATICS
TEACHER

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TEACHER LEADER

Middle School Mathematical Modeling

Denise Castleberry & Dr. Jacqueline Hennings

Session Description: Let's take a look at using mathematical modeling in our courses to promote student engagement and mathematical reasoning.

Location:
B403

ADMINISTRATOR

MATHEMATICS
TEACHER

CS4GA App and Design Challenge

Cobb County Students

Session Description: The GaDOE CS Ambassadors will present their apps that won the 2023 CS4GA App and Design Challenge. To promote awareness, community service, and innovation, the theme of this year's challenge was Community Advocacy Project.

Location:
B301

COMPUTER SCIENCE

Mathematics in the Georgia Home Classroom

Dr. Meghan Welch, Dana Munson, & Olumeri Wright

Session Description: The Georgia Home Classroom is a great place to find hundreds of standards-aligned mathematics resources – learning plans, podcasts, videos, and more!

Location:
B408

ADMINISTRATOR

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MATHCON AGENDA

WEDNESDAY, JULY 12 – DAY 2

BURST SESSIONS

1:00 – 1:40 PM

Embedded Student Learning Supports (K-12) **Ye Na Parrett & Jenise Sexton**

Session Description: Are you looking to provide real-time support for your students? This session will explore the embedded student learning supports within the mathematics instructional materials.

Location:
B404

COUNSELOR

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Resources & Services for Advanced Learning

Mary Jean Banter, Lisa Hackney, Martha Smith

Session Description: Come learn about instructional resources available to teach gifted and advanced learners. Participants will be able to take a tour of the available resources and leave with more strategies for teaching gifted and advanced learners.

Location:
B311

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English Language Arts Updates

Dr. Breanne Huston

Session Description: What's new on the horizon for our ELA classrooms? Join us as we share pivotal updates regarding the new ELA standards and more!

Location:
B405 – B407

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Exploring Georgia's Mathematical Practice Standard (K-12) **Tiffany Dillard**

Session Description: The participants will build on what they know about the mathematical practice standard by exploring the shifts from Georgia Standards of Excellence to Georgia's K-12 Mathematics Standards. They will ponder what students' behaviors should be evident in today's classrooms.

Location:
B409

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MATHCON AGENDA

WEDNESDAY, JULY 12 – DAY 2

CLOSING SESSION

3:15 – 4:00 pm

What is Artificial Intelligence (A.I.) and what does it mean for you? Come and learn how A.I. impacts the future of education and the various changes on the horizon.

Dr. Bryan Cox



MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

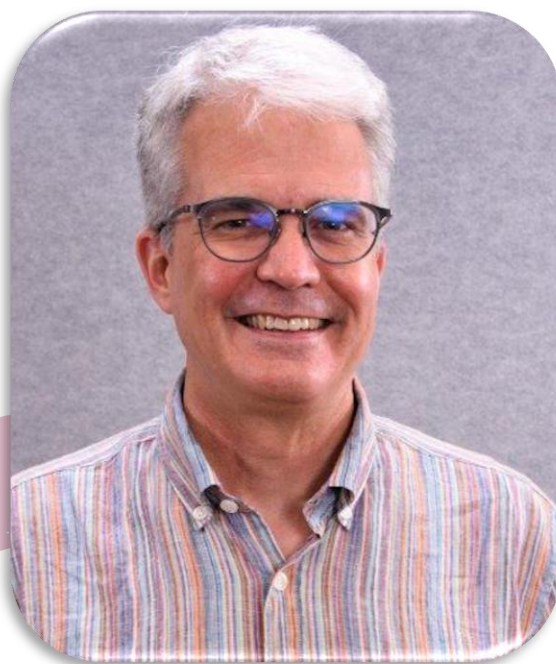
REGISTRATION

8:30 – 9:00 AM

OPENING KEYNOTE

9:20 – 10:20 AM

Lance Waller



Lance A. Waller is Professor in the Department of Biostatistics and Bioinformatics, Rollins School of Public Health, Emory University. He received his B.S. in Mathematics from New Mexico State University (1986), and his Ph.D. in Operations Research from Cornell University (1991). Prof. Waller leads the Woodruff Health Science Center's Strategic Initiative in Data Science. He is currently a member of the U.S. National Academy of Science Board on Mathematical Science and Analytics and serves as co-Chair of the Committee on Applied and Theoretical Statistics. Prof. Waller was recently appointed to a three-year term on the US Census Bureau's Scientific Advisory Committee.

MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

COMPUTER SCIENCE

STEM@GTRI

Morning Session

Tyler Kinner

Learn about how GTRI provides resources for teachers to strengthen their STEM-related curriculum.

CyberStart America & GenCyber

Afternoon Session

Dr. Lindsay Linsky

Learn about a free program that can take your high school students from zero to employable in under a year through cybersecurity education!

COMPUTER
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DUAL ENROLLMENT MATHEMATICS, MATHEMATICS PROGRESSION, & ADVISEMENT

Jennifer Phinney

Session Description: Dual Enrollment is designed to prepare students for college and career opportunities leading students to postsecondary institutions for an industry recognized certification or licensure, an associate and/or higher college degree, and successful employment. Let's discuss the impact of mathematics progressions and advisement that align to students' post-secondary aspirations and pursuits.

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KINDERGARTEN – 2nd GRADE

Mary Dawkins & Seyoung Holte

Session Description: In this session, we will explore mathematics in the wonderful world of kindergarten through second grade. Participants will experience learning mathematics content through interdisciplinary connections. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

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MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

3rd GRADE – 5th GRADE

Sarah Marshall & Estella Newkirt

Session Description: In this session, we will explore mathematics in the wonderful world of third through fifth grade. Participants will experience learning mathematics content through interdisciplinary connections. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

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6th GRADE – 7th GRADE

Angie Brunson & Anne Gay

Session Description: In this session, we will explore mathematics in the wonderful world of sixth and seventh grade. Participants will experience learning mathematics content through interdisciplinary connections. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

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8th GRADE – ALGEBRA: CONCEPTS & CONNECTIONS

Tiffany Evans & James Special

Session Description: In this session, we will explore mathematics in the wonderful world of eighth grade and Algebra: Concepts & Connections. Participants will experience learning mathematics content through interdisciplinary connections. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

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MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

GEOMETRY: CONCEPTS & CONNECTIONS

Tynisha Robinson

Session Description: In this session, we will explore the exciting world of Geometry: Concepts & Connections. Participants will experience learning mathematics content through statistical reasoning. Newly revised units and learning plans will be used as resources throughout this session, and effective mathematics teaching practices will be modeled by the facilitators.

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ADVANCED ALGEBRA: CONCEPTS & CONNECTIONS

Renee Owen

Session Description: In this session, we will explore the exciting world of Advanced Algebra: Concepts & Connections. Participants will have the opportunity to engage in learning mathematics content through statistical reasoning. We will use the newly revised units and learning plans as valuable resources throughout the session to facilitate this learning.

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STATISTICAL REASONING, AP STATISTICS, & LINEAR ALGEBRA WITH COMPUTER SCIENCE APPLICATIONS

Kaycie Maddox & Torre Mills

Session Description: Statistical Reasoning is a critical focus of Georgia's K-12 Mathematics Standards. This session will focus on the senior-level high school mathematics courses. Participants will also learn more about the newly adopted standards for Statistical Reasoning and Linear Algebra with Computer Science Applications. College Board representatives will also provide specific information and updates related to AP Statistics.

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MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

CONTENT BREAKOUTS 10:30 AM – 12:00 PM & 1:45 – 3:15 PM

PRECALCULUS & AP PRECALCULUS

Suzette Weinhardt

Session Description: Participants will have the opportunity to engage in hands-on learning experiences that help them gain greater familiarity with Georgia's K-12 Mathematics Standards for Precalculus. Additionally, participants will receive specific professional learning from College Board on the new AP Precalculus Framework and receive resources to support their understanding of the AP Exam.

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HIGH SCHOOL MATHEMATICAL MODELING PATHWAY

Denise Castleberry & Dr. Jacqueline Hennings

Session Description: Participants will continue to explore the high school Mathematical Modeling Pathway of courses which includes Advanced Financial Algebra, Advanced Mathematical Decision Making, College Readiness Mathematics (Capstone), and Mathematics of Industry & Government. The newly revised units and learning plans as will be used throughout the session to facilitate this learning.

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CALCULUS, AP CALCULUS & ADVANCED CALCULUS COURSES

Tamaiko Chappell & Cori Colby

Session Description: Participants will have the opportunity to engage in rich learning tasks aligned to Georgia's K-12 Mathematics Standards for Calculus. The purpose of this session is to help teachers gain a greater understanding of the newly adopted Calculus course. Additionally, participants will receive specific professional learning from College Board on the AP Calculus Frameworks and receive resources to support their understanding of the AP Exams.

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MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

LUNCH BREAK

12:00 – 1:00 PM

BURST SESSIONS

1:00 – 1:40 PM

Who's Supporting the High Schoolers? (9-12)

Jenise Sexton

Session Description: This session will address student learning supports specifically for high school students.

Location:
B310

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Hey, Desmos, What's this About the Computation Layer? (K-12)

Michael Wiernicki

Session Description: Participants will learn how to connect components using some simple CL codes to take their Desmos activities to the next level.

Location:
B304

ADMINISTRATOR

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Effective Mathematics Teaching Practices for Leaders Kenneth Golden

Session Description: This session will guide your understanding of the Eight Effective Mathematic Teaching Practices as well how to manage them within your organization. Learn how to identify the practices within the classroom and how to facilitate them within the professional learning community.

Location:
B302

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GaDOE Assessment Updates

Dr. Nijia Byrd & Dr. Jan Blose

Session Description: This session will provide assessment updates for all statewide testing programs from the GaDOE Assessment Team.

Location:
B405 – B407

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MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

BURST SESSIONS

1:00 – 1:40 PM

Interdisciplinary Connections Units (6-12) **Felicia Cullars & Dr. John Pritchett**

Session Description: Attendees will participate and explore the Mathematics Interdisciplinary Connections units for each secondary mathematics course to support content relevance with in-demand careers across Georgia while helping students understand how mathematics connects to the real world.

Location:
B305

ADMINISTRATOR

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HS Mathematical Modeling **Denise Castleberry & Dr. Jacqueline Hennings**

Session Description: Let's take a look at using mathematical modeling in our courses to promote student engagement and mathematical reasoning.

Location:
B403

ADMINISTRATOR

MATHEMATICS
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GaDOE Computer Science Update **Dr. Bryan Cox & Lavita Williams**

Session Description: The GaDOE Computer Science Program Specialists, Dr. Bryan Cox and Lavita Williams, will update teachers on resources and professional development opportunities.

Location:
B301

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COMPUTER SCIENCE

Specially Designed Instruction: The Road Map to Supporting Students with Disabilities in Math

Yyanisha Bass Bonner & Alisha Williamson

Session Description: Participants will explore best practices to provide specially designed instruction for students with disabilities.

Location:
B306

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The Importance of Mathematics in STEM/STEAM Education **Rontra Brown**

Session Description: Explore the importance of the practices of mathematics in STEM/STEAM pedagogy and their applicability in the current and future workforce in this interactive session. Learn how to support students' ability to solve real world problems and gain knowledge through interdisciplinary connections.

Location:
B404

COMPUTER SCIENCE

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MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

BURST SESSIONS

1:00 – 1:40 PM

Exploring Georgia's Mathematical Practice Standard (K-12) **Tiffany Dillard**

Session Description: The participants will build on what they know about the mathematical practice standard by exploring the shifts from Georgia Standards of Excellence to Georgia's K-12 Mathematics Standards. They will ponder what students' behaviors should be evident in today's classrooms.

Location:
B409

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Dual Enrollment

Jennifer Phinney

Session Description: This session will be an extension of the content session given on Day 3. This session is for anyone who missed the hot topics from the content session. Jennifer will be available to answer questions.

Location:
B311

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Mathematics in the Georgia Home Classroom

Dr. Meghan Welch, Olumeri Wright, & Dana Munson

Session Description: The Georgia Home Classroom is a great place to find hundreds of standards-aligned mathematics resources – learning plans, podcasts, videos, and more!

Location:
B408

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Interdisciplinary Teaching for Elementary Math Teachers

Dr. Lenisera Barnes-Bodison

Session Description: Come and experience a journey of endless possibilities for students to gain a love of learning math through interdisciplinary challenges.

Location:
B303

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MATHCON AGENDA

THURSDAY, JULY 13 – DAY 3

CLOSING SESSION

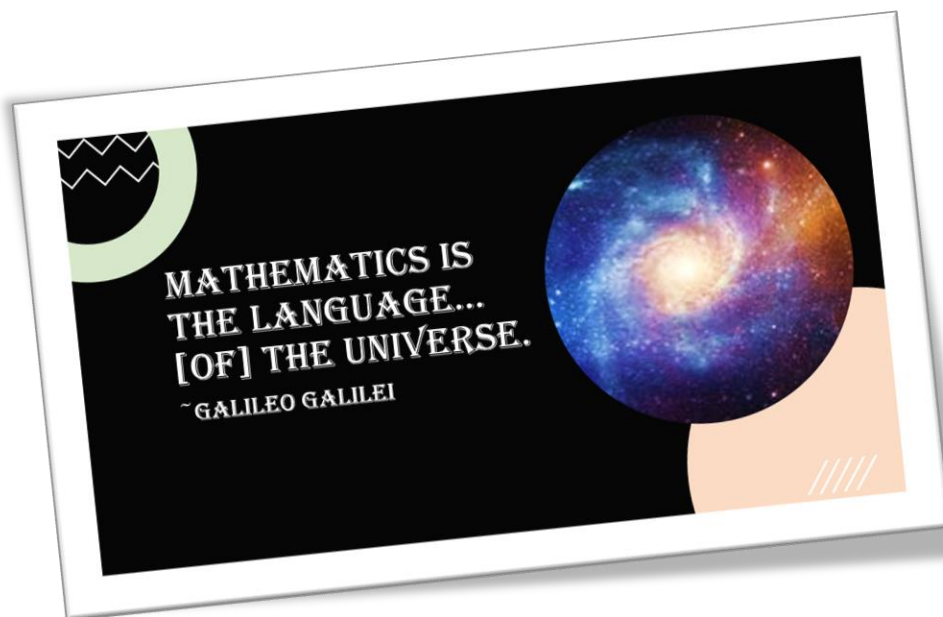
3:00 – 4:00 PM

Dr. Lya Snell

**GaDOE Mathematics and Computer Science
Program Manager**

It's a celebration!

Come and celebrate as we launch into the implementation year for Georgia's K-12 Mathematics Standards with the official closing of MathCON 2023!



GADOE MATHEMATICS & COMPUTER SCIENCE TEAM



Mathematics & Computer Science
Program Manager

Lya Snell, Ph D.

lsnell@doe.k12.ga.us



Secondary Mathematics
Program Specialist

Karla Cwetna, Ph D.

kcwetna@doe.k12.ga.us



Secondary Mathematics
Program Specialist

Kenneth Golden

Kenneth.golden@doe.k12.ga.us



Elementary Mathematics
Program Specialist

Michael Wiernicki

mwiernicki@doe.k12.ga.us



Jenise Sexton Mathematics
Content Integration Specialist

Jenise Sexton

jsexton@doe.k12.ga.us



Mathematics ESOL
Program Specialist

Ye Na Parrett

YeNa.parrett@doe.k12.ga.us



Computer Science
Program Specialist

Bryan Cox, Ph. D

bcox@doe.k12.ga.us



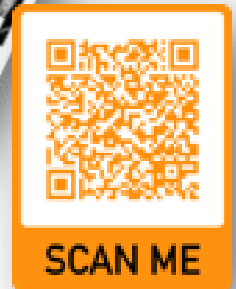
Computer Science
Program Specialist

Lavita Williams

Lavita.williams@doe.k12.ga.us

MATH IS THE HERO!

The National Academies of Sciences provides helpful resources to promote the mathematical connections that exist between real life and natural phenomena. Find more details and posters using the links below.



RESOURCES

Our landing page hosts a wealth of resources to provide you with support to implement Georgia's K-12 Mathematics Standards with fidelity. These resources include support for implementation, standards resources, and professional learning. Please scan the QR code below or access the resources by using the links provided.



tinyurl.com/MathCON23Resources
www.gadoe.org/mathcon
www.gadoe.org/mathematics



“Mathematics is not about numbers,
equations, computations, or algorithms:
it is about understanding.”

– Joseph Fourier
French mathematician and physicist