Implementing Georgia's K-12 Mathematics Standards

EFFECTIVE TEACHING STRATEGIES

GEORGIA'S NEWLY ADOPTED MATHEMATICS STANDARDS

IMPLEMENTATION PLANS

GaDOE
Georgia Department of Education

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

Brian P. Kemp
GOVERNOR

STATE OF GEORGIA
OFFICE OF THE GOVERNOR
ATLANTA 30334-0090

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,

Governor Brian P. Kemp

GREETINGS

ANDRE DICKENS
MAYOR

CITY OF ATLANTA

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

TEL (404) 330-6100

July 11, 2023

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,

Mayor Andre Dickens

GREETINGS

Georgia Department of Education

Educating Georgia's Future

Richard Woods
STATE SUPERINTENDENT

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

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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

ATLANTA MathCON

Content Breakout Sessions

Door Prizes

Instructional Strategies

Mathematics Pathways Planning

& more!

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

HAVING FUN AT MATHCON!

Mathematics Carnival

Join us as we bring a mathematized journey to life during the MathCON 2023 Mathematics Carnival.

MathCON Scavenger Hunt

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

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!

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

Computer Science & Math Integration
Afternoon Session
Craig Sapp
Learn how to integrate computer science (specifically coding) into math class.

COMPUTER 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 TEACHER	MATHEMATICS TEACHER LEADER

MATHCON AGENDA

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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	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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.

	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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	MATHEMATICS TEACHER LEADER

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.

	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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	MATHEMATICS TEACHER	MATHEMATICS 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 TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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

CEISMC K-12 Resources & Engagement
Morning Session
Alba Gutierrez

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

COMPUTER SCIENCE

Integrated Computing
Afternoon Session
Dr. Lauren Margulieux

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

COMPUTER SCIENCE

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 TEACHER | MATHEMATICS TEACHER LEADER

MATHCON AGENDA

WEDNESDAY, JULY 12 – DAY 2

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MATHCON AGENDA

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Kaycie Maddox & Torre Mills

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HIGH SCHOOL MATHEMATICAL MODELING PATHWAY

Denise Castleberry & Dr. Jacqueline Hennings

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Tamaiko Chappell & Cori Colby

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	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS 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	MATHEMATICS TEACHER LEADER	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	MATHEMATICS 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	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	COUNSELOR	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	COUNSELOR	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.

Location: B409	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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.

COMPUTER SCIENCE

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 SCIENCE

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.

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 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.

MATHEMATICS TEACHER | MATHEMATICS TEACHER LEADER

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.

	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 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.

	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 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.

	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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.

	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 statistical reasoning. We will use the newly revised units and learning plans as valuable resources throughout the session to facilitate this learning.

	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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.

	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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.

	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	COUNSELOR	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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 TEACHER	MATHEMATICS TEACHER LEADER

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	ADMINISTRATOR	COUNSELOR	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	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS 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.

Location: B404	COMPUTER SCIENCE	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	COUNSELOR	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	COUNSELOR	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	ADMINISTRATOR	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

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	MATHEMATICS TEACHER	MATHEMATICS TEACHER LEADER

MATHCON AGENDA

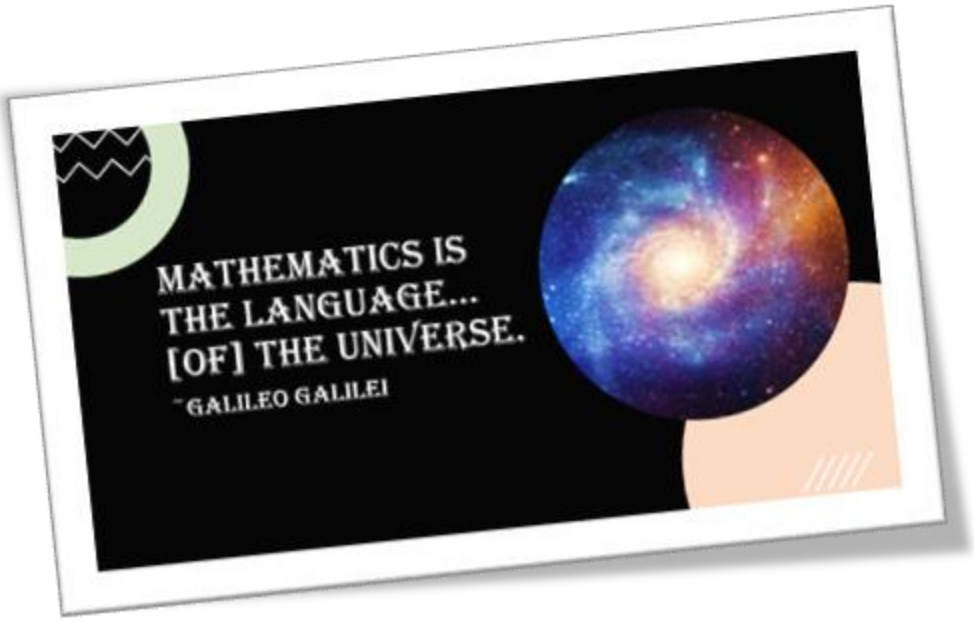
THURSDAY, JULY 13 – DAY 3

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!



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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.

SCAN ME

SCAN ME

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.

SCAN ME

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

ATLANTA MathCON

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

– Joseph Fourier
French mathematician and physicist