



## Georgia Department of Education

### 2019 Fall Curriculum Leaders' Conference

Wednesday, September 25, 2019

Time: 8:30-4:00

The Classic Center – Athens, Georgia

### Numeracy and the Whole Child

#### Keynote Speaker: Dr. Ann Dominick

*Dr. Ann Dominick received her undergraduate degree in education from Auburn University, a Master's in Education from the University of Alabama at Birmingham, a doctorate from Vanderbilt University, and a Certificate of Advanced Studies in Curriculum and Instruction at Harvard University. She was awarded the National Science Foundation's Presidential Award for Excellence in Teaching Elementary Mathematics and is a former Alabama State Teacher of the Year. She is currently an Assistant Professor at the University of Alabama at Birmingham teaching mathematics and education courses and preparing undergraduates to be secondary mathematics and science teachers. Ann is the co-author of Number Talks: Fractions, Decimals, & Percentages.*

#### Conference Agenda

**7:30 am – 8:30 am**

Grand Hall 8

**Conference Check-in and Continental Breakfast**

**8:30 am – 9:00 am**

Athena Ballroom A-J

**Welcome**

Introduction of State School Superintendent Richard Woods by Deputy Superintendent Dr. Caitlin Dooley

**9:00 am – 10:15 am**

Athena Ballroom A-J

**Keynote:** How Can Teaching Numerical Reasoning Benefit the Whole Child?

Abstract: Numerical reasoning means being able to make sense of numbers and operations and quantitative situations. How does teaching numerical reasoning benefit the whole child and what does teaching math in an environment where students are safe, engaged, supported, and challenged look like?

Number Talks are a five-fifteen minute classroom conversation around carefully crafted problems that are solved mentally and they are an important tool for developing numerical reasoning. Come learn about the effects that effective Number Talks have on the whole child.

**10:15 am – 10:30 am**  
Grand Hall Pre-Function

***Break***

**10:30 am – 11:00 am**  
Athena Ballroom A-J

**Mapping the State of Teaching and Learning in Georgia: You are Here, Deputy Superintendent Dr. Caitlin Dooley**

Abstract: Georgia's educational outcomes continue to rise as teachers, students, and families put their very best into teaching and learning. This presentation will show statewide data improvements and demonstrate how some schools are reaching their highest outcomes ever.

**11:10 am – 12:10 pm**  
Grand Hall 8

***Lunch***

**12:20 pm – 1:10 pm**

**Break-Out Sessions A – G**

**1:15 pm – 2:05 pm**

**Repeat Break-Out Sessions A – G**

**2:05 pm – 2:15 pm**  
Grand Hall Pre-Function

***Break***

**2:20 pm – 3:10 pm**

**Break-Out Sessions H – M**

**3:10 pm – 4:00 pm**

**Repeat Break-Out Sessions H – M**

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**BREAK-OUT SESSIONS A – G**

**12:20 pm – 1:10 pm Break-Out Sessions A – G**

**1:15 pm – 2:05 pm Repeat Break-Out Sessions A – G**

Session A:  
Olympia 1

**Number Talks: A Tool for Building Mathematical Confidence**  
Dr. Ann Dominick

Abstract: Number Talks are a five-to-fifteen minute classroom conversation around carefully crafted problems that are solved mentally. This session will focus on the power of using Number Talks to help students gain a better understanding of numbers and how they work.

Participants will engage in Number Talks, view videos of students engaged in Number Talks, and learn about how to help teachers plan and implement effective Number Talks for use in their classrooms.

Session B:  
Olympia 2

**Numeracy in Social Studies: It all Adds Up**

Joy Hatcher, Social Studies Program Manager  
JoAnn Wood, Social Studies Program Specialist  
Jennifer Zoumberis, Social Studies Program Specialist  
Becky Ryckley, Ph.D. Coordinator for Social Studies, Gifted, and Advanced Placement Fayette County Schools  
Sally Meyer, Ph.D. Instructional Content Coach for Social Studies Fayette County Public Schools

Abstract: Numeracy and social studies might sound like the old saying about politics (strange bedfellows); however, the two subjects actually help promote relevance and critical thinking for students. Integrating numeracy into social studies helps students contextualize knowledge and improve their reasoning skills to mirror the work of social scientists. This session will provide connections to research and examples of social studies lessons with embedded mathematical skills practice used in Fayette County. We will share activities that utilize the census or other data sources that require students to practice and extend the skills they have already learned in math class asking students to make connections between math and the real world.

Session C:  
Parthenon 1

**Integrating Numeracy in your STEM/ STEAM School/ Program**

Meghan McFerrin, STEM/STEAM Program Specialist  
Rontra Brown, STEM/STEAM Program Specialist – Southwest Georgia RESA  
Allyson Morgan, STEM/STEAM Program Specialist – First District RESA

Abstract: STEM and STEAM provide context for and hands-on application of standards. Join this session to learn ways that schools across Georgia are utilizing STEM and STEAM teaching and learning to bring numeracy to life. This session will explore examples of how educators have partnered with business and industry to develop real-world scenarios that engage students with mathematics content.

Session D:  
Parthenon 2

**Developing Foundational Numeracy Using the Georgia Numeracy Project**

Dr. Lya Snell, Mathematics Program Manager  
Brooke Kline, Secondary Mathematics Program Manager  
Michael Wiernicki, Elementary Mathematics Program Specialist  
Michelle Clay, Numeracy Project Lead Teacher for Floyd County Schools

Abstract: This presentation will focus on utilizing Georgia's Numeracy Project Framework which is a FREE intervention resource provided for all learners. The session will briefly discuss the assessments used to support teachers and students on their quest to develop the numeracy skills needed to be proficient in their core mathematics instruction. The majority of the session will lead educators through the process of using the intervention and progress monitoring tools to discover activities needed to fill gaps in students' mathematical learning and then chart the students' progress. This will be a hands-on learning

experience. Participants will leave with the knowledge needed to implement this resource in their school district, school or classroom immediately.

Session E:  
Grand Hall 1

### **Mathtivity: Integrating Numeracy in Health and Physical Education**

Christi Kay, President, HealthMPowers

Abstract: Mathtivity is a program that integrates math concepts with physical activity at the elementary school level (K-5). The program was developed through a joint effort of the Georgia Department of Education and HealthMPowers. In this session participants will actively explore how health, physical education and numeracy are more aligned than many might imagine.

Session F:  
Grand Hall 2

### **Science and Numeracy: Engaging in the Practices**

Amanda Buice, Science Program Manager

Keith Crandall, Science Program Specialist

Renee Shirley-Stevens, Science/Special Ed Program Specialist

Dr. Donald White, Science Content Specialist for Coweta County Schools

Abstract: In both the standards for mathematical practices and the science and engineering practices, we ask students to develop and use models and construct arguments. In science, students need to analyze and interpret data and use mathematics and computational thinking. Join us as we navigate this intersection of numeracy and science. Engage in a real-world phenomenon involving bee decline and pollination. We'll explore how students in Coweta County School System integrate their math and science skills to design robo-pollinators.

Session G:  
Grand Hall 3

### **Numeracy Strategies for Advanced Students**

Gail Humble, College Readiness/Talent Development Program Manager

Mary Jean Banter, College Readiness/Talent Development Program Specialist

Abstract: In this session you will learn about the strategies math teachers successfully implement to further develop numeracy skills and mathematical talent in Georgia classrooms for students scoring at grade level or above. Discuss strategies employed to ensure students gain the numeracy skills and concept development needed to be successful in high school and college. See and discuss the strategies that will make your district's students competent, confident and ready to take on the challenge of higher mathematical thinking.

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### BREAK-OUT SESSIONS H – M

**2:20 pm – 3:10 pm**     **Break-Out Sessions H – M**

**3:10 pm – 4:00 pm**     **Repeat Break-Out Sessions H – M**

Session H:  
Olympia 1     **A Professional Learning Model to Develop Strong Instructional Practices**

Dr. Juan-Carlos Aguilar, Director of Innovative Programs and Research  
William Harn, High School Science Teacher, Vidalia City Schools

Abstract: This session will highlight a Professional Learning model titled, "I can Deconstruct, Test and Teach to the Standards" being implemented in Vidalia City Schools to support fidelity of alignment between the taught curriculum and the standards. Vidalia City Schools have used the Georgia Standards of Excellence to develop learning targets, using "I Can" statements, and associated success criteria derived from the standards. Vidalia City Schools' teachers have work in modifying and/or creating instructional lessons, using the 5E model, that support these learning targets and assessment items aligned to their success criteria statements.

Session I:  
Olympia 2     **Frenemies: Bringing Numbers and Words Together for Harmony**

Stephanie Sanders, Program Manager for ELA  
Breanne Houston, Program Specialist for ELA  
Anisha Donald, Program Specialist for ELA  
Franeka Colley, Program Specialist for ELA

Abstract: Often, students (and teachers) may view literacy and numeracy as two direct opposites; however, both are crucial for accessing the broader curriculum and are often used together in many aspects of our lives. In this session, we want to dispel the notion that words, and numbers do not get along. This session will focus on the use of diverse strategies to stimulate students' interest in meaningful literacy and numeracy experiences.

Session J:  
Parthenon 1     **Integrating Numeracy in Computer Science**  
Bryan Cox, Computer Science Program Specialist

Abstract: Computer Science, as defined in Georgia, is "the study of computational thinking, computing devices and their impact on society". Computational Thinking is the problem-solving approach that a computer scientist would use to address a challenge. This strategy is also employed by non-computer scientists as an evolution of previous problem-solving strategies (e.g., critical thinking, deductive reasoning, engineering design process, etc.) and includes characteristics of each. Abstraction,

decomposition, pattern recognition, and algorithmic thinking are among the more commonly agreed upon components of computational thinking and, incidentally, are also characteristics of people with strong numeracy skills. This session will explore these characteristics, look at how strong math skills are used to gauge success in computer science experiences, and discuss how engaging in computer science education could improve student efficacy and ability in math classes.

Session K:  
Parthenon 2

**Numeracy and the Arts: Integration Works!**

Jessica Booth, Fine Arts Program Manager  
Paul McClain, Fine Arts Program Specialist

Abstract: Instead of teaching math as a stand-alone subject, learn how teachers are using dance, drama, music, and visual arts to teach numeracy in an engaging way both in and out of the arts classroom.

Session L:  
Grand Hall 1

**Let Students Play: Improving Numeracy Skills with Sports Data**

Laura Evans, Director of Education, Georgia Public Broadcasting  
Brad Fountain, Director, Teaching & Learning Team, Discovery Education

Abstract: Many of the students we struggle to reach in the classroom will spend hours debating who is the best basketball, football, or soccer player and use statistics and data to support their argument. Join GPB Education and Discovery Education to learn how we can channel that passion to engage students in everyday math skills that not only address our curriculum, but also build excitement around math. In this session we will look at practical ways to use data from innovative, free resources to teach math concepts.

Session M:  
Grand Hall 2

**“Tiered” Up to Support Numeracy through Effective MTSS Practices**

Karen Suddeth, Program Manager, Georgia’s Tiered System of Supports  
Dr. Deshonda Stringer, Regional Specialist, Georgia’s Tiered System of Supports  
Jenise Sexton, Mathematics Program Specialist  
Dr. Sam Sabaka, Coordinator, RTI/SST, Section 504, PBIS, &  
Psychological Services, Paulding County School District

Abstract: This session will provide information to support numeracy skills for the whole child through a tiered system of supports with an emphasis on ensuring the infrastructure component to support instruction and strengthen numeracy skills at Tier I. Additionally, information will be shared regarding Paulding County School District’s role in providing school supports for the multi-tiered system of supports for students in mathematics.