VIRTUAL MATHEMATICS PROFESSIONAL LEARNING CATALOG

2021 - 2022

Click Here

Georgia Department of Education
Mathematics Teaching and Learning
Click on a grade level to find the virtual professional learning options offered by the Georgia Department of Education.
Kindergarten

Session 1: Building the Count Sequence and Counting Routines
November 17, 2021 (Pre-Recorded)
Link to pre-record PL session
Watch Now

Session 2: Early Numeracy and Counting
November 30, 2021 (Pre-Recorded)
Link to pre-record PL session
Watch Now

Session 3: Math Tools: Using Manipulatives to Develop Student Understanding
December 7, 2021 5:00-6:00 PM (Live)
Link to live session recording
Watch Now

Session 4: Decomposing Numbers and Place Value
December 15, 2021 5:00-6:00 PM (Live)
Link to live session recording
Watch Now

Session 5: Geometric and Spatial Reasoning
January 12, 2022 (Pre-Recorded)
Link to pre-record PL session
Watch Now

Session 6: Patterning and Algebraic Thinking
February 16, 2022 5:00-6:00 PM (Live)
Link to live session registration
Watch Now

Session 7: Concepts of Addition and Subtraction
March 16, 2022 (Pre-Recorded)
Link to pre-record PL session
Watch Now

Session 8: Math Talk and Writing in Mathematics
April 20, 2022 5:00-6:00 PM (Live)
Link to live session registration
Watch Now

Richard Woods, Georgia’s School Superintendent | Georgia Department of Education | Educating Georgia’s Future
1st Grade

Session 1: Mathematics Makes Sense in Context! (Intro to SMPs and ETPs)
November 4, 2021 (Pre-Recorded)
Link to pre-recorded PL session

Session 2: Counting and Place Value Part I
November 18, 2021 (Pre-Recorded)
Link to pre-recorded PL session

Session 3: Problem Solving and Numeracy Progression
December 7, 2021 6:00-7:00 PM (Live)
Link to live session recording

Session 4: Building Fluency: Role of Play and Multiple Representations
December 14, 2021 6:00-7:00 PM (Live)
Link to live session recording

Session 5: Measurement Reasoning: Iterate What?
January 20, 2022 (Pre-Recorded)
Link to pre-recorded PL session

Session 6: Geometric & Spatial Reasoning
February 15, 2022 6:00-7:00 PM (Live)
Link to live session recording

Session 7: Place Value Part II: Navigating 100 chart and more
March 15, 2022 6:00-7:00 PM (Live)
Link to live session registration link

Session 8: Statistical Problem-Solving Process and Mathematical Modeling
April 15, 2022 (Pre-Recorded)
Link to pre-recorded PL session
2nd Grade

Session 1: Math Talk
November 5, 2021
(Pre-Recorded)
Link to pre-recorded PL session
Watch Now

Session 2: Conceptual Understanding through Numberless Word Problems
November 16, 2021
3:30-4:30 PM
(Live)
Link to live session recording
Watch Now

Session 3: Geometry All Around: Geometric & Spatial Reasoning
November 30, 2021
3:30-4:30 PM
(Live)
Link to live session recording
Watch Now

Session 4: Fluency from Understanding: Drill-less Math Facts
December 7, 2021
3:30-4:30 PM
(Pre-Recorded)
Link to pre-recorded PL session
Watch Now

Session 5: 3-Act Tasks
January 11, 2022
3:30-4:30 PM
(Pre-Recorded)
Link to live session recording
Watch Now

Session 6: Time and Money: Measurement & Data Reasoning
February 8, 2022
3:30-4:30 PM
(Pre-Recorded)
Link to pre-recorded PL session
Watch Now

Session 7: Represent It: Measurement & Data Reasoning (length & graphs)
March 15, 2022
(Live)
Link to live session registration link

Session 8: Multiplicative Thinking
April 12, 2022
(Pre-Recorded)
Link to pre-recorded PL session

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3rd Grade

Session 1: Problem-Solving with Multiplication and Division
November 4, 2021 (Pre-Recorded)
Link to pre-record PL session

Session 2: Multiply and Divide within 100
November 18, 2021
6:00-7:00 PM (Live)
Link to live session recording
Watch Now

Session 3: Patterns in Arithmetic and Problem-Solving
December 2, 2021 (Pre-Recorded)
Link to pre-record PL session
Watch Now

Session 4: Reasoning with Shapes and their Attributes
December 16, 2021
6:00-7:00 PM (Live)
Link to live session recording
Watch Now

Session 5: Representing and Comparing Fractions
January 20, 2022
6:00-7:00 PM (Live)
Link to live session recording
Watch Now

Session 6: Measurement and Problem-Solving
February 17, 2022
6:00-7:00 PM (Live)
Link to live session registration
Watch Now

Session 7: Solving Problems with Larger Numbers using Place Value and Properties
March 17, 2022 (Pre-Recorded)
Link to pre-record PL session

Session 8: Data and Statistical Reasoning
April 14, 2022 (Pre-Recorded)
Link to pre-record PL session
4th Grade

Session 1: Let’s give them something to talk about: Math Routines
November 17, 2021 (Pre-Recorded)
Link to pre-recorded PL session
Watch Now

Session 2: Math in the Real World
November 30, 2021 6:00-7:00 PM (Live)
Link to live session recording
Watch Now

Session 3: Keywords aren’t the Key to Understanding
December 2, 2021 (Pre-recorded)
Link to pre-recorded PL session
Watch Now

Session 4: No matter how you slice it...Making sense of fractions
December 15, 2021 6:00-7:00 PM (Live)
Link to live session recording
Watch Now

Session 5: Another Piece of the Puzzle: Understanding Decimals
January 20, 2022 (Pre-recorded)
Link to pre-recorded PL session
Watch Now

Session 6: What Do the Data Show?
January 14, 2022 6:00-7:00 PM (Live)
Link to live session recording
Watch Now

Session 7: Getting into Shape!
March 10, 2022 6:00-7:00 PM (Live)
Link to live session registration link

Session 8: Going the Distance: (time, length, area, and perimeter)
March 31, 2022 (Pre-recorded)
Link to pre-recorded PL session

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5th Grade

Session 1: A Progression of Learning: Adding and Subtracting Mixed Numbers
TBD (Pre-Recorded)
Link to pre-record PL session:

Session 2: A Progression of Learning: Multiplying Fractions
February 9, 2022 (Pre-Recorded)
Link to pre-record PL session:

Session 3: A Progression of Learning: Dividing Fractions
February 23, 2022 (Pre-Recorded)
Link to pre-record PL session:

Session 4: A Progression of Learning: Building the Concept of Volume
March 9, 2022 4:00-5:00 pm (Live)
Live session registration link:

Session 5: A Progression of Learning: Statistical Reasoning
March 23, 2022 4:00-5:00 pm (Live)
Live session registration link:

Session 6: A Progression of Learning: Geometric Reasoning Part 1
March 30, 2022 (Pre-Recorded)
Link to pre-record PL session:

Session 7: A Progression of Learning: Geometric Reasoning Part 2
April 13, 2022 4:00-5:00 pm (Live)
Live session registration link:

Session 8: Reasoning and the Productive Struggle
April 27, 2022 4:00-5:00 pm (Live)
Live session registration link:
# 6th Grade

<table>
<thead>
<tr>
<th>Session 1: Which is the Better Buy?</th>
<th>Session 2: I Don’t Have a Twin but I Do Have an Opposite!</th>
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</thead>
<tbody>
<tr>
<td>November 16, 2021 (Pre-Recorded)</td>
<td>December 7, 2021 (Pre-Recorded)</td>
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<tr>
<td>Link to pre-record PL session:</td>
<td>Link to pre-record PL session:</td>
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<tbody>
<tr>
<td>December 8, 2021 3:30-4:30 pm (Live)</td>
<td>December 15, 2021 3:30-4:30 pm (Live)</td>
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<tr>
<td>Link to recorded PL session:</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Session 5: It’s OK for You to Talk Now! Let Students EXPRESS Themselves!</th>
<th>Session 6: Strategies for Solving One-Step Equations and Inequalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 19, 2022 3:30-4:30 pm (Live)</td>
<td>February 8, 2022 3:30-4:30 pm (Pre-Recorded)</td>
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<tr>
<td>Link to recorded PL session:</td>
<td>Link to pre-record PL session:</td>
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<tr>
<th>Session 7: How Can Statistics be Used to Connect Concepts in 6th Grade?</th>
<th>Session 8: Let’s Get Into Shape!</th>
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<tbody>
<tr>
<td>March 23, 2022 3:30-4:30 pm (Live)</td>
<td>April 13, 2022 (Pre-Recorded)</td>
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<tr>
<td>Live session registration link:</td>
<td>Link to pre-record PL session:</td>
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</tbody>
</table>

Richard Woods, Georgia’s School Superintendent | Georgia Department of Education | Educating Georgia’s Future
8th Grade

Session 1: Using 3-Act Tasks and the CRA Model with Multi-step Equations and Inequalities
Release Date: November 9, 2021
- Session 2: Using Desmos and Formative Assessment Lessons
  Date: November 18, 2021 5:00-6:00 pm
- Session 3: Using Contextual Situations and Card Sorts
  Release Date: December 2, 2021
- Session 4: Mathematical Modeling
  Date: December 14, 2021 5:00-6:00 pm
- Session 5: Using Geogebra and Formative Assessment Lessons
  Date: January 13, 2022 5:00-6:00 pm
- Session 6: Systems of Equations as Riddles
  Release Date: January 27, 2022
- Session 7: Using Discovery to Explore Volume and the Pythagorean Theorem
  Release Date: February 25, 2022
- Session 8: Scientific Notation through Formative Assessment Lesson and a Desmos
  Date: April 14, 2022 5:00-6:00 pm
Algebra: Concepts & Connections

Session 1: Modeling Linear Functions
November 17, 2021
4:00-5:00pm (Live)
Link to a recording of the Live Session: Watch Now

Session 2: Reasoning and Generating Linear Inequalities
December 1, 2021
4:00-5:00pm (Live)
Link to recording of live session: Watch Now

Session 3: Investigating Rational and Irrational Numbers
December 15, 2021
4:00-5:00pm (Live)
Link to recording of live session: Watch Now

Session 4: Modeling and Analyzing Quadratic Functions
January 5, 2022
4:00-5:00pm (Live)
Link to recording of live session: Watch Now

Session 5: Modeling and Analyzing Exponential Expressions and Equations
January 19, 2022
4:00-5:00pm (Live)
Link to recording of live session: Watch Now

Session 6: Exponential Functions
February 16, 2022
4:00-5:00pm (Live)
Link to live session registration link:

Session 7: Investigating Data
March 16, 2022
4:00-5:00pm (Live)
Link to live session registration link:

Session 8: Algebraic Connections to Geometric Concepts
April 20, 2022
4:00-5:00pm (Live)
Link to live session registration link:
Geometry: Concepts & Connections

Session 1: Polynomial Expressions
November 11, 2021
5:00-6:00pm
(Live)
Link to recording of live session
Watch Now

Session 2: Geometric Foundations, Constructions and Proof
November 18, 2021
5:00-6:00pm
(Live)
Link to recording of live session
Watch Now

Session 3: Congruence
November 29, 2021
5:00-6:00pm
(Pre-Recorded)
Link to pre-recorded PL session

Session 4: Similarity
December 7, 2021
5:00-6:00pm
(Live)
Link to recording of live session: Watch Now

Session 5: Right Triangle Trigonometry
January 6, 2022
5:00-6:00pm
(Live)
Link to recording of live session: Watch Now

Session 6: Circles
January 27, 2022
5:00-6:00pm
(Live)
Link to live session registration link

Session 7: Equations and Measurement
February 24, 2022
5:00-6:00pm
(Live)
Link to live session registration link

Session 8: Probability and Statistics
March 10, 2022
5:00-6:00pm
(Live)
Link to live session registration link

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Advanced Algebra: Concepts & Connections

Session 1: Moving Away from Math without Context: Dissecting the Mathematical Modeling Framework
November 11, 2021 (Prerecorded)
Link to prerecorded PL session:

Session 2: Using the Framework for Statistical Reasoning to Make Inferences and Conclusions about Data
November 29, 2021 (Prerecorded)
Link to live session recording:

Session 3: Real or Imaginary: Exploring Quadratic Functions in Context (AA.FGR.5)
December 7, 2021 (Live)
Link to live session recording:

Session 4: Exploring Patterns and Structures for Radical Functions (AA.FGR.4)
December 16, 2021
5:30-6:30pm (Live)
Link to live session recording:

Session 5: Using Matrices to Represent Data and Solve Linear Equations (AA.PAR.6)
TBD (Pre-Recorded)
Link to live session recording:

Session 6: Rational Behavior: Exploring Rational Functions (AA.FGR.8)
February 24, 2022
5:30-6:30pm (Live)
Link to live session recording:

Session 7: Exploring Patterns and Structures for Exponential and Logarithmic Functions in Context (AA.FGR.3)
March 24, 2022
5:30-6:30pm (Live)
Link to live session recording:

Session 8: Getting “Trig-y” with the Unit Circle (AA.GSR.7)
April 14, 2022 (Prerecorded)
Link to prerecorded PL session:

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Precalculus

Session 1: Modeling with Rational and Piecewise Function
January 11, 2022 (Prerecorded)
Link to prerecorded PL session: Watch Now

Session 2: Establishing the Unit Circle as a Course Foundation
January 18, 2022 (Prerecorded)
Link to prerecorded PL session: Watch Now

Session 3: Modeling with Wave Functions
January 20, 2022 (Prerecorded)
Link to prerecorded PL session: Watch Now

Session 4: Developing Trigonometric Identity Relationships
January 24, 2022 (Prerecorded)
Link to prerecorded PL session: Watch Now

Session 5: Developing Polar Coordinates and Equations
January 25, 2022
5:00-6:00 pm (Live)
Live session registration link: Watch Now

Session 6: Modeling with Vectors and Parametric Equations
February 22, 2022
5:00-6:00 pm (Live)
Live session registration link: Watch Now

Session 7: Investigating Sequences and Series
March 22, 2022
5:00-6:00 pm (Live)
Live session registration link: Watch Now

Session 8: Examining Threads in the Course
April 12, 2022
5:00-6:00 pm (Live)
Live session registration link: Watch Now
Mathematical Modeling Pathway

Session 1:
The Significance of Mathematical Modeling
January 23, 2022
(Prerecorded)
Link to prerecorded PL session:

Session 2:
Creating Relevant Tasks for Student Engagement
January 31, 2022
(Prerecorded)

Session 3:
Purposeful Use of Technology.
December 2, 2021
5:00-6:00 pm
(Live)
Live session registration link:

Session 4:
Locating Sources for Mathematical Applications to Model.
December 14, 2021
5:00-6:00 pm
(Live)
Live session registration link:

Session 5:
One Good Task: The Mathematics of Finance
January 19, 2022
(Prerecorded)

Session 6:
One Good Task: The Mathematics of Industry and Government.
February 17, 2022
5:00-6:00 pm
(Live)
Live session registration link:

Session 7:
March 24, 2022
(Prerecorded)

Session 8:
Success in the Mathematical Modeling Pathway - Now What?
April 22, 2022
5:00-6:00 pm
(Live)
Live session registration link:
Advanced Calculus

**Session 1:**
Using VANG for Analysis in Calculus and AP Calculus
November 16, 2021 (Prerecorded)

**Session 2:**
Making Connections through Modeling in Calculus
November 30, 2021 (Prerecorded)

**Session 3:**
Formative Assessment in AP Calculus
December 7, 2021 5:00-6:00 pm (Live)

**Session 4:**
Understanding the Limit as the Basis of Calculus
December 14, 2021 5:00-6:00 pm (Live)

**Session 5:**
Getting ready for the Exam: AP Calculus AB and BC
January 25, 2022 (Prerecorded)

**Session 6:**
Beyond AP Calculus BC: Differential Equations
February 15, 2022 5:00-6:00 pm (Live)

**Session 7:**
Beyond AP Calculus BC: Multivariable Calculus
March 22, 2022 (Prerecorded)

**Session 8:**
Beyond AP Calculus BC: Engineering Calculus
April 12, 2022 5:00-6:00 pm (Live)
Advanced Statistics

Session 1: Setting the Stage for AP Statistics
November 17, 2021 (Prerecorded)
Link to prerecorded PL session:
Watch Now

Session 2: Statistical Reasoning Task Modeling – Chunking It!
November 29, 2021 (Prerecorded)
Link to prerecorded PL session:
Watch Now

Session 3: Calibrating Expectations for FRQs and Utilizing Them for Formative Assessment
December 8, 2021
5:00-6:00pm (Live)
Link to recording of live session:
Watch Now

Session 4: Correlating Tasks with Statistical Reasoning Standards
December 14, 2021
5:00-6:00pm (Live)
Link to recording of live session:
Watch Now

Session 5: AP Statistics Preparing for the Exam
February 3, 2022 (Prerecorded)
Link to prerecorded PL session:
Watch Now

Session 6: Statistical Reasoning Task Modeling
February 16, 2022
5:00-6:00pm (Live)
Link to live session registration link:

Session 7: Linear Algebra with Computer Science Applications Task 1
March 23, 2022
5:00-6:00pm (Live)
Link to live session registration link:

Session 8: Linear Algebra with Computer Science Applications Task 2
April 20, 2022
5:00-6:00pm (Live)
Link to live session registration link:

Mathematics Virtual Specialists 2021-2022

Algebra: Concepts & Connections
Virtual Specialist
Charlene Matthew

Geometry: Concepts & Connections
Virtual Specialist
Jernita Randolph

Advanced Algebra: Concepts & Connections
Virtual Specialist
Sheena Williams

Precalculus
Virtual Specialist
Julie Harrison

Mathematical Modeling Pathways
Virtual Specialist
Niyokia Phillips

Advanced Calculus
Virtual Specialist
Tamaiko Chappell

Advanced Statistics
Virtual Specialist
Kaycie Maddox