Summer 2017
Early Math Symposium

Friday, June 23, 2017, 8:00 AM to 4:30 PM

Yolo County Office of Education – 1280 Santa Anita Court, Woodland, CA 95776

Registration – 8:00 to 8:30

Welcome and Introduction – 8:30 to 8:45

- **Glen Price, Chief Deputy Superintendent, California Department of Education**
- **Patricia Rucker, California State Board of Education Member**

Keynote – 8:45 to 9:45

- **Dr. Megan Franke, Professor of Education, University of California Los Angeles**
  From Counting to Problem Solving: The Power of Partial Understanding

  Megan Franke is a Professor of Education at UCLA. Dr. Franke, along with her colleagues, supports and studies teachers as they make use of research based information about the development of children's mathematical thinking (CGI – Cognitively Guided Instruction) in ways that create opportunities for low-income students of color to learn mathematics with understanding.

Whole Group Presentation – 9:45 to 10:50

- Introduction by **Sarah Neville-Morgan, Deputy Director, First 5 California**

- **Sue Dolphin, Math Perspectives Teacher Development Center**
  Understanding Children's Thinking through Number Talks

  Sue Dolphin is an Education Specialist for Math Perspectives working across the country with teachers of grades K-5 mathematics. She has taught grades kindergarten through eighth grade and served as a math coach, a literacy coach and a project facilitator for a National Science Foundation grant in Clark County School District. She is co-authoring a book with Kathy Richardson on Number Talks anticipated to be released late this year.

Break – 10:50 to 11:05

Whole Group Presentation – 11:05 to 12:10

- Introduction by **Kristin Wright, Director, Special Education Division, California Department of Education**

- **Kristin Brooks, Project Director of Supporting Inclusive Practices Initiative Universal Design for Learning and Multi-Tier System of Supports**

Kristin Brooks has dedicated 19 years to the education and inclusion of students with and without disabilities. She began her educational career as a speech-language pathologist and co-created an inclusive preschool in southern California in 2005. She served as both a site level administrator and district director before transitioning to statewide grant work related to least restrictive environment and the State Systemic Improvement Plan where she has worked with more than 50 local educational agencies for systems change.

Lunch – 12:10 to 1:10 / Afternoon overview **Erin Sullivan**, Commission on Teacher Credentialing

Break Out Session 1 – 1:10 to 2:05

Participants may select one of the four sessions below:

Math and Literacy Dr. Susan O'Hara, Executive Director REEd, UC Davis and Dr. Bob Pritchard, language and literacy specialist In this session teachers, coaches, and instructional leaders will learn about best practices for developing the academic language and literacy of young students in mathematics classrooms. We will share the SOAR (Strategic Observation and Reflection) Teaching Frames for Math, practices and materials. The session will benefit attendees by providing them with concrete tools and illustrations to implement effective instructional practices, aligned with California Mathematics and English Language Arts/English Language Development Frameworks, and designed to drive the mathematical and literacy learning of students in grades TK-2.	**Contemporary Questions for Montessori Math** Dr. Jonathan Feagle, California Department of Education and Crystal Alexander, Montessori Training Center This session will look at contemporary theories on mathematical instructional materials with a focus on strategies for using hands-on, concrete instructional materials. The Montessori model offers an ideal curriculum to demonstrate how concrete instructional materials can be successful because of its well-developed sequences of lessons based on hands-on materials. Strategies and practices supported by current research will be demonstrated by the use of Montessori materials. If you would like to learn more about how to use concrete instructional materials or the Montessori method, or both, please consider joining this session.
 	 

Mathematic Reasoning: Foundations and Framework Volume 1
Kathy Carter-Wilson, California Preschool Instructional Network

Participants will become aware of key concepts to be developed in the Mathematical Reasoning strand of the California Preschool Learning Foundations (PLF) and key strategies in the California Preschool Curriculum Framework (PCF). In addition, participants will consider how to support the development of Mathematical Reasoning foundations for children learning English as a second language adapting curriculum to ensure access for children with varying needs.

Math Festival Fun
Early Math Project Team

This session with model how to host a math festival at a school, classroom, or child care center. Participants will learn fun math strategy games and explore math by playing with pattern blocks, bubbles, tangrams, dominoes, art, measurement, building, sensory bottles, objects from nature, and pentominoes. Links will be provided to Early Math Project resources that will simplify setting up a math event. Come play, take pictures, learn something new, and get ideas for hosting your own center, classroom, or school math festival.

Break Out Session 2 – 2:10 to 3:05

Participants may select one of the four sessions below:

Math in the Moment – Opportunities to advance young children's thinking during work and play
Dr. Rebecca Ambrose, Director of Teacher Education, University of California, Davis

Participants will explore teaching opportunities that arise in children's everyday activities by viewing some videos of interactions with children about their mathematical thinking. We will discuss questions that adults can use to elicit, support, and extend children's thinking. Attendees will leave with suggestions for generating problems and asking questions.

Tips for Implementing Number Talks
Sue Dolphin, Math Perspectives Teacher Development Center

In this session, participants will learn more about number talks - short, ongoing conversations about mathematics that give children the opportunity to develop mathematical competence over time. Participants will learn strategies for helping children become fluent with small numbers as a foundation for future learning and using place value concepts to add and subtract.

3D Math: Decks, Dice, and Dominoes
Dr. Shannon Cannon, Robla School District

Using familiar game-playing materials participants will explore how known and new games help children subitize and build number sense. A strong foundation in number sense can help prepare children for the demands of math in the upper grades.

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Break - 3:05 to 3:20

Break Out Session 3 – 3:20 to 4:15

Participants may select one of the four sessions below:

Publications and Professional Resources Focusing on Early Math, Birth to Five
Heather McClellan Brandusa, California Department of Education

Participants will learn about statewide professional learning systems, Websites, online modules & videos, and DVDs.

Tinker Tubs – Combining Math and Manipulatives in Novel Ways
Dr. Shannon Cannon, Robla School District

In this interactive session, we will investigate how combining math manipulatives in novel ways allows children to explore and integrate multiple math concepts. By creating "provocations" using readily available materials, children expand and apply skills in number sense, classification and patterns, measurement, and geometry. Math Tub activities can be structured or open-ended, and can be differentiated based upon individual student's interests and progress.

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Contemporary Questions for Montessori Math
Dr. Jonathan Feagle, California Department of Education and Crystal Alexander, Montessori Training Center

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Survey and Prizes – 4:15 to 4:30