



EastWestMath™ L.L.C.
World-class Instruction & Resources

7th Annual Singapore Math® Summer Institute

Presenters:

Makoto Yoshida, Ph.D.

Mary Leer, Ph.D.

Kathleen Wallace, M.S.

08/25 & 08/26

8:30 AM to 3:30 PM

Cornell ILR Conference Center NYC
570 Lexington Ave., 12th Fl. NY, NY 10022



Gr. 3-5 Program & Schedule

- 1 Singapore Math Essentials
- 2 Solving Problems with Bar Models
- 3 Fractions: Concepts and Calculations
- 4 Multiplication & Division: Concepts and Fluency
- 5 Enrichment for Advanced Learners

Schedule Day 1

Lunch is served from
12:00 PM to 12:45 PM

Morning:

8:30 AM to 9:00 AM

Registration

9:00 AM - 12:00 PM

Singapore Math Essentials

Afternoon:

12:45 PM - 3:45 PM

Solving Problems with Bar Models

Schedule Day 2

Lunch is served from
11:45 AM to 12:30 PM

Morning:

8:30 AM to 8:45 AM

Registration

8:45 AM - 11:45AM

Fractions: Concepts and Calculations

Afternoon: Choice of 2 Workshops

12:30 PM - 3:30 PM

Enrichment for Advanced Learners

Or

Multiplication & Division: Concepts and Fluency

Description of our workshops

PRACTICAL TEACHING STRATEGIES THAT YOU CAN USE RIGHT AWAY

1

SINGAPORE MATH ESSENTIALS

This session will focus on helping participants understand the essential ideas of Singapore Math, CPA pedagogy and structure of Singapore Math materials, including Math in Focus and Dimensions Math. Teachers will learn how to focus lessons on the core concepts of whole numbers and calculations that lead to development of strong number sense, mastery and fluency. Participants will learn how to use the materials and plan lessons.

- Philosophy of mathematics teaching in Singapore
- Characteristics of Singapore Math teaching & learning
- Constructivist pedagogy, CPA, bar models
- Essential concepts that lead to mastery and fluency
- How to use Math in Focus & Dimensions materials
- How to plan lessons & connect to CCSS & NGS
- Pacing & assessments will be discussed

2

SOLVING PROBLEMS WITH BAR MODELS

This session will focus on the use of bar models in solving word problems in Grades 3-5. This knowledge will be directly applicable for understanding and implementing Singapore-based math programs such as Math in Focus, Primary Mathematics, and Dimensions Math.

Participants will learn how to:

- Use the part-whole and comparison models to solve problems involving the four operations with whole numbers
- Solve multi-step word problems
- Solve problems with fractions and decimals
- Improve learning with the use of bar models



Description of our workshops

PRACTICAL TEACHING STRATEGIES THAT YOU CAN USE RIGHT AWAY

3

FRACTIONS: CONCEPTS & CALCULATIONS

This workshop will focus on exploring strategies of teaching fractions. Using fraction pieces, number lines and bar models, participants will learn to identify and compare fractions, recognize equivalent fractions, convert mixed numbers and improper fractions, and understand the relationship between fractions and division.

Participants will learn:

- different meaning of fractions (part-whole, measurement, unit, division and ratio)
- effective ways to teach addition and subtraction of fractions
- effective hands on activities and games for teaching unit & equivalent fractions
- multiplication and division of fractions
- connection to decimals

4

MULTIPLICATION AND DIVISION: CONCEPTS & FLUENCY

This session will focus on developing conceptual understanding of multiplication & division and achievement of fluency. Participants will use the East West Math mastery cards to enhance student understanding and engage in activities & games. Participants will learn how to:

- Teach multiplication facts using manipulatives such as pictures & array models
- Connect multiplication and division with proportional relationships
- Connect multiplication to division
- Teach properties of multiplication (commutative, distributive, associative)
- Use activities and games to develop fluency
- Connect multiplication and division to middle school mathematics (i.e. proportional relationships, proportion, ratio, and rate)



Description of our workshops

PRACTICAL TEACHING STRATEGIES THAT YOU CAN USE RIGHT AWAY

5

ENRICHMENT FOR ADVANCED LEARNERS

This session will focus on meeting the needs of advanced learners in math class. We will begin by looking at integrating differentiation into the Singapore lesson model, and continue with specific activities for independent practice time.

Participants will learn to:

- Move beyond packets to integrated enrichment
- Provide greater depth and complexity, rather than just “moving ahead”
- Utilize the math journal to promote deep thinking
- Integrate extended math projects
- Incorporate games and puzzles into math class



WHAT THEY SAY ABOUT US

- “ *I can't thank you enough for all of the wonderful information and resources you provided our teachers with to get started.*
- **Millburn Township Schools, NJ**



- “ *As always, another fabulous Institute.*
- **The Country School, CT**

- “ *Thorough, clear and well presented.*
- **Bronxville School District, NY**

