

AGENDA

Foundational Seminar for Do the Math Now!

GOALS

- Use content-scaffolded, sequenced lessons to develop students' computation skills, number sense, and problem-solving abilities
- Pace instruction for student success
- Facilitate student interactions using the think-pair-share strategy to deepen student learning and assess understanding
- Integrate vocabulary development into intervention instruction

OVERVIEW

This foundational seminar helps teachers gain a deeper understanding of instructional strategies and underlying mathematics content embedded in the Do the Math/Do the Math Now! programs. Teachers learn alternative teaching approaches that engage and motivate struggling students, pace students for success, and bolster their confidence and competence. Teachers learn how to make informed choices about the instruction they provide to students who need more time and support to learn math.

DAY 1

OPENING

Introduction to the day includes session goals and logistical information pertinent to the day.

PERSPECTIVE ON ALGORITHMS

Algorithms help students focus on interpreting and understanding a solution in the context of a problem by freeing up mental capacity. Participants will be introduced to ideas about the role that carefully chosen algorithms play in an intervention program.

DO THE MATH NOW! STRATEGIES FOR MULTIPLICATION

Do the Math Now! Units 1 and 2 develop and reinforce students' understanding of the meaning of multiplication and their fluency with facts. Unit 3 focuses on building a foundation of understanding that allows students to develop efficient strategies for multiplying while also supporting their reasoning and number sense. In this segment of the day, teachers experience some of the DTMN program activities.

SPECIFIC TASKS

- Things That Come in Groups
- Multiplication Bingo
- Numerical and Visual Patterns on the 100 Chart

LUNCH

SCAFFOLDING CONTENT TO PROVIDE ACCESS

The scaffolding of content that intervention students need to be successful and to understand mathematics calls for educators to carefully consider the complexity and layers of the math we are teaching. The challenge is to break down each concept and connect one idea to the next in a meaningful manner. In this segment of the day, teachers examine the kinds of multiplication problems students are expected to solve. They consider the way instructional decisions affect the development of these skills through scaffolded content. Finally, they compare their thinking to what is done in Do the Math Now!

SPECIFIC TASKS

- Multiplication Sorting Task

DO THE MATH NOW! SCAVENGER HUNT

There are many teacher tools and resources embedded in DTMN that can go unnoticed by teachers using the program. In this session, participants orient themselves to the components of DTMN as they engage in a scavenger hunt.

SPECIFIC TASKS

- Scavenger Hunt

MATH SOLUTIONS GUIDING PRINCIPLES

Drawing upon academic work and our own classroom-grounded research and experience, Math Solutions has identified the following four instructional needs as absolutely essential to improving instruction and student outcomes:

- Robust Content Knowledge
- Understanding of How Students Learn
- Insight into Individual Learners through Formative Assessment
- Effective Instructional Strategies

These four instructional needs drive the design of all Math Solutions courses, consulting and coaching. We consider them our guiding principles and strive to ensure that all educators:

- Know the math they need to teach—know it deeply and flexibly enough to understand various solution paths and students' reasoning.
- Understand the conditions necessary for learning, what they need to provide, and what students must make sense of for themselves.
- Recognize each student's strengths and weaknesses, content knowledge, reasoning strategies, and misconceptions.
- Have the expertise to make math accessible for all students, to ask questions that reveal and build understanding, and help students make sense of and solve problems.