

AGENDA***Do The Math: Division*****OVERVIEW**

This course prepares participants to develop students' essential understanding of division, and strengthens their own number sense. Participants gain confidence in the progression of learning in the modules and value the importance of fidelity to the program. They explore the Instructional Practices Inventory and consider how it can elevate their instructional decisions.

OUTCOMES

- Articulate key concepts and strategies from the division modules
- Support students' ability to make sense of division concepts, solve problems, reason, and use designated strategies
- Make learning experiences accessible to all students without compromising the rigor in the lessons
- Utilize the Instructional Practices Inventory to reflect on effective *Do The Math* instruction

Day 1**Opening**

The opening includes introductions, goals, an overview of *Do The Math: Division* modules, and establishes learning agreements.

Developing the Meaning of Division

Participants experience and discuss both the sharing model and grouping model of division. They examine *Do The Math* lesson plans to determine how division is explicitly connected to multiplication and discuss how the scaffolding supports and prepares struggling students to work independently.

BREAK**Using Games for Meaningful Practice**

In this session, participants experience several games that not only provide practice dividing, but also develop students' number sense and build their familiarity with basic division facts. Manipulatives provide a concrete tool for considering remainders and making sense of equations.

LUNCH

Generalizing About Divisibility

Do The Math helps students develop numerical reasoning by focusing on relationships and understanding. Participants experience Silent Division and discuss the patterns of the quotients and remainders for the purpose of generalizing about divisibility.

BREAK

Making Sense of Long Division

Participants gain essential practice with the alternative division algorithm taught in *Do The Math*. They develop an understanding of why it works and articulate the advantages of using it.

Closing

Participants take time to reflect on the experiences of the day and ways that these experiences will impact their classroom instruction. In addition, participants draw upon the expertise of colleagues and discuss possible solutions for common instructional scenarios with *Do The Math*.

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.