AGENDA
3-Day Professional Learning Series
DAY 3: Planning for Rigorous Learning Experiences
Hands-on planning sessions for teachers and coaches
with your district's materials and resources

COURSE OUTCOMES

Participants will:

- Create a common vision for effective math instruction that supports student success.
- Select and modify activities to form a coherent set of learning experiences for students.
- Understand the Instructional Planning Process so they may apply it to their own classroom(s).

OVERVIEW

During this professional learning day, participants work to understand more about how students learn mathematics. Additionally, time is dedicated to considering different attributes of learning tasks. Participants apply these ideas to select and enhance lessons to develop a sequence of instruction. As part of professional reflection, participants determine next steps for using and/or sharing this process with others at their schools.

Opening

This introduction includes the course goals, pertinent logistical information, and summary information about the Instructional Planning Process.

Purpose: The purpose of this part of the day is to present the goals of the day, and review the structure of the course for planning instruction.

Engaging Students in Constructive Struggle (90 minutes)

Giving students time and opportunity to struggle constructively with complex problems — which are often interesting and engaging — increases their motivation. Students learn that in-depth analysis and critical thinking are as valuable as quick recall and direct skill application. Participants collaborate to

solve a challenging math problem and jigsaw the article "Constructive Struggling" by Cathy Seeley.

Purpose: The purpose of this session is for participants to consider how a view of learning in which people create or construct their own understanding of mathematical concepts and relationships through interactions between their minds and concrete experiences in the real world, impacts decisions they make about how to teach both concepts and skills in a unit of study.

Specific Tasks
- "Constructive Struggling" by Cathy Seeley

Classifying Tasks
This session raises teachers' awareness of "tasks that promote reasoning and problem solving" as defined by *Principles to Actions* (NCTM 2014). Participants sort task cards into groups of open and closed tasks. The point is not that one type of task is better than another; rather, it is important to know the potential of a task so that it can be appropriately matched to the goals for student learning.

Purpose: The purpose of this session is to connect the ideas of tasks that promote reasoning and problem solving as defined by NCTM in their Principles to Actions (2014) to how this knowledge will support them to appropriately align tasks to their goals for student learning.

Specific Tasks
- Open and Closed Question Sort
- Analyzing Rigor and Resources *or* Transform a Task

During this working session, participants use the instructional ideas from the morning sessions to align lessons and learning activities as part of a cohesive instructional plan. Choosing activities for students is a regular part of classroom instruction. Ensuring that the choice of activities embodies the rigor called for in the Common Core State Standards is important. With well aligned, purposeful, and engaging activities, units of study effectively guide students to proficiency with the identified concepts and skills.

Purpose: _The purpose of this session is for participants to select or create learning resources that illustrate understanding of tasks that promote thinking, reasoning, and making sense of mathematics. Additionally, this session is devoted to distinguishing which of the concepts or skills students can make sense of on their own, through guided learning activities, and which require information from an external source._

Specific Tasks
- Choosing and Aligning Activities

Participants reflect on the similarities and differences between the processes used during the day to select learning resources for their instructional plans compared to processes they used in the past.

Purpose: _This session is devoted to the important process of professional reflection. By articulating the processes and ideas use
d to select learning resources, participants are more equipped to repeat these processes in the future._

Specific Tasks
- Communicating the Instructional Planning Process