



Infusing the Classroom with Reasoning and Sense Making: An NCTM Interactive Institute on High School Mathematics

Information for Institute Speakers

The institute is based on the following goal and outcomes:

Goal: To provide an interactive professional learning experience that transforms the high school mathematics classroom to focus on reasoning and sense making.

Outcomes: Participants will

- understand that reasoning and sense making are integral to the teaching of the *Common Core State Standards for Mathematics*, state standards, and provincial guidelines.
- learn strategies for creating and maintaining a high school classroom infused with reasoning and sense making.
- learn how to use, select and develop mathematical tasks to reveal student thinking and engage students in reasoning and sense making.
- create an action plan for their school or practice informed by institute experiences.

To achieve our goal, attendees are expected to participate in several different activities over a two and on-half day period:

1. Keynote Sessions (60-minutes)
2. Workshops (75-minutes)
3. Task Groups (approximately 60-minutes)
4. Discussion Groups (60-minutes)

At the end, attendees will have completed a draft Action Plan for implementing ideas learned at the conference.

Session Types:

- **Keynote Sessions** – Well known mathematics leaders will address critical topics related to and supporting reasoning and sense making.
- **Workshops** – Practitioners engage participants in a hands-on activity that promotes reasoning and sense making. Workshop leaders might model how a task is used in an instructional setting with the workshop participants experiencing how reasoning and sense making are fostered by the task. Classroom video and student work might be shared.
- **Task Groups** – Participants register for a strand (beginning algebra, intermediate algebra, geometry, probability and statistics) and experience working through a task as a new learner. In the third Task Group Session participants will develop or modify a task using a template provided.
- **Discussion Groups** - Facilitated discussion among small groups of role-alike or interest-alike people. Discussion will help guide participants in the development of their action plan.

Conference Schedule:

	Day 1		Day 2		Day 3
		8:30-9:45	Keynote Session: Panel	8:30-9:30	Keynote Sessions
		10:00-11:15	Breakout Workshops	9:45-11:00	Breakout Workshops
		11:30-12:30	Working Boxed Lunch: Discussion Groups	11:15-12:30	Working Boxed Lunch: Task Groups
11:00 – 2:00	Registration	12:45-1:45	Keynote Sessions	12:45-2:00	Breakout Workshops
2:00 – 3:15	Opening Session	2:00-3:15	Breakout Workshops	2:15-3:15	Discussion Groups
3:30 – 4:30	Task Groups	3:30-4:30	Task Groups	3:30-4:30	Closing Session