## Mathematics Coaching Program - Mathematics Teaching Institute

July 28, 2015

## Daily Agenda: Day Two

**Big Picture Goals:** 

- Investigate the use of Formative Instruction in mathematics classrooms.
- Use students' work to uncover mathematical thinking and misconceptions.
- Deconstruct the operations of multiplication and division using the language of equal groups
- Integrate Mathematical Practices into mathematics instruction.
- Build fluency in basic facts through conceptual understanding.

9:00 am	Azita, Monelle, Steve, and James	Asking the BIG <i>Why</i> Questions in K – 12 Mathematics What can we learn from 'wrong' answers?
10:00 am		Morning Break – as needed
10:15 am	Azita, Monelle, Steve, and James	Asking the BIG <i>Why</i> Questions in K – 12 Mathematics What can we learn from 'wrong' answers?
12:00 pm		Lunch
12:45 pm	Tim and Amanda	Using Formative Assessment in Grades 3 – 5 TeacherTube Video: "My Favorite No" Bruner's Phases of Understanding: Enactive, Ikonic, and Symbolic Thinking Deconstructing Multiplication and Division Pigs have 44 teeth / Wristbands at the fair Student Invented Algorithms The Language of equal groups / fair sharing

2:15 pm		Afternoon Break
2:30 pm	Tim	Number Talks by Sherry Parrish
		Video Case: Number Talks in Context from <i>My Kids Can</i> !
3:15 pm	Tim and Amanda	Building fluency in basic facts – Developing Mathematical Thinking
		"Faster Isn't Smarter" by Cathy Seeley
		"Families Ask about Timed Tests" by Marilyn Burns
		Small Group Conversation – Memorization versus thinking skills
3:50 pm		Daily Feedback Form
		Day Two Homework: "13 Rules that Expire" (Karp, Bush, and Dougherty, 2014)