***Theme for the day: Investigating the progression of rates of change in the CCSS to plan for students’ coherent learning of rates of change.***

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| Time & groupings | Designers/ Facilitators | Activity & Purposes  | Materials |
| 7:30-8:00PLCs | Kris | Introduction and teacher survey/ discussion of what principals/assistant principals can do that is helpful. | Survey forms and large paper |
| 8:00-8:20 | Jackie | Grouping activity to get into mixed groups:Goal: Have teachers generate and share examples that clarify average rate of change and the meaning of F-IF.6. It also gives teachers a chance to mix among each other, and experience the teaching strategy of having students create their own examples.  | Blank Cards |
| 8:20-8:50 | Brandon | Explore CCSS learning trajectory related to rates of change (6th grade – high school); Goal: Have teachers consider the CCSS progression of understanding rates of change from 6th – 8th grade and consider how they would build on that knowledge to target F-IF.6. It is also designed to gain more equal participation by members of a group. | Trajectory activity  |
| 8:50-9:50 | Scott | New rates of change problem: Motorcycle RaceGoal: Do and examine another task that targets F-IF.6 that is in some ways similar to Growing Rectangles and in some ways different from Growing Rectangles. | Task |
| 9:50-10:20 | Kris | Discuss new problem approach and compare new problem to Growing Rectangles problem – small groups, then large group. (Discuss related learning goals, how the new task builds on students’ prior knowledge (connecting to Brandon’s activity) and what/how higher-level questions would help students think deeply about the learning goals. What will be problematic for students? How do the problematic aspects relate to the learning goals?) |  |
| 10:20-10:35 | Break |  | snacks |
| 10:35-11:35 PLCs | Cheryl | Introduce (revised) Thinking Through A Lesson Protocol, then plan lesson to use Growing Rectangles with specific learning targets and formative assessment. (All leaders and peer teachers acting as facilitators during PLC time, roving between a couple of assigned groups.)Goal: Provide a protocol for planning a lesson with a rich task, and a little time to start work on it.Start lunch while they work or, if they need to, finish polishing their presentations. | Copies of MTMS article; Criteria for learning targets and FA; Poster paper |
| 11:35-12:00 | Janet | Posters/gallery walk and finish lunch: Need a way to focus the Gallery walk (a purpose); this could also be a good place to have a teacher reflection. |  |
| 12:00-1:00 | Leader/Peer teacher in each room | Session I: (Three teams take turns presenting in each room, mixed group remaining teachers in each audience; one peer teacher and one project leader in each room; record presentations?)  Team 1 12:00-12:15 presentation, protocol questions 12:15-12:20 Team 2 12:20-12:35 presentation, protocol questions 12:35-12:40Team 3 12:55-1:10 presentation, protocol questions 1:10-1:05 | Reflection/recording sheets for observersVideotape presentations? |
| 1:05-1:35 |  | Team debrief and break (this still needs to be designed) | Protocol |
| 1:35-2:15 | Leader/Peer teacher in each room | Session II (same structure but with two teams presenting in each room and mixed groups in each audience) Team 4 1:35-1:50 presentation, protocol questions 1:50-1:55 Team 5 1:55-2:10 presentation, protocol questions 2:10-2:15 | Reflection/recording sheets for observersVideotape presentations? |
| 2:15-2:35 |  | Team debrief (this still needs to be designed).  | Protocol |
| 2:35-2:50 | Kris | Whole group discussion of learning studies |  |
| 2:50-3:00  | Jackie | Homework and EvaluationsHomework: Bring student work from Growing Rectangles to Summer Institute | Homework,Evaluations |