Mathematics goal: Creating expressions from a patterns task (quadratic); SSE

Mathematical practices goal: SMP 2/3 (a little bit of SMP 7 and 8)

Teaching goals: Coherence, CC continued, understanding structure of CCSS-M

TPEP goal: Criterion 4

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| **Time &****Groupings** | **Activity & how it addresses the goals of the grant** | **Materials** |
| 7:45-8:55Regrouped by grade level | Introduction and structure of the CCSS* Provide a basic understanding of terminology and design of the CCSS-M (domains, clusters, standards, conceptual categories)
* Start understanding the key characteristics of the CCSS-M (i.e. focus, coherence, rigor, SMP)
* Consider coherence at a deeper level.
 | PowerPoint, tasks, document cameraReflection sheet |
| 8:55-10:00PLCs | Urban Sprawl * Experience and reflect on how pattern tasks can be used to support students’ development of Seeing Structure in Expression (A-SSE).

Specifically: * A-SSE.2, A-SSE.3: Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
* And how the mathematical practices support this learning: SMP 2: Reason abstractly and quantitatively, SMP 7: Look for and make use of structure, and SMP 8: Look for and express regularity in repeated reasoning.
 | Task sheets, document camera, pink half-sheets for reflection |
| 10:00-10:15 | Break | Snacks |
| 10:15-12:00PLCs | CC task. * Deepen our understanding of the cognitive complexity involved in a task
* Connect these understandings to our own classrooms.
* Think about the role of the SMP in increasing cognitive complexity.
* Design a Level 3 task and consider its implementation in terms of TPEP criterion 4, in particular student evidence.
 | Tasks they collected in their classrooms after the September workshopCC Sharing ProtocolPoster paper, markers |
| 12:00-1:00Regrouped by value of expression | **Lunch time conversation**: What motivates middle and high school students to learn mathematics?  | Protocol sheets for facilitators.3-by-5 cards for expressions |
| 1:00-2:30PLCs  | PLC work time organizing their focus topic in terms of CC, A-SSE, SMP, and TPEPPeer teachers and project leaders should join the groups that appear to be having trouble starting, to help facilitate the work, and to ask critical questions.  | Handouts on StagesTasks they bring from their focus topicReporting sheet |
| 1:30-2:30 | **Principals will meet without teachers for most of the next hour.** |  |
| 2:30-2:45 P/APs with PLCs around tables  | Recap and HWReflect on the goals we targeted today – how did we do? | HW sheets;  |
| 2:45-3:00  | Evaluations | Evaluation sheets; Principal Page |