

Figure 2.3

Mathematics Instruction and Higher-Level-Cognitive-Demand Mathematical Task Development Tool

Directions: Use these questions to allow for deep discussion of each higher-level-cognitive-demand mathematical task.

1. Why did you select or create this task?
2. How would you modify the task to increase its potential to engage students?
3. What is the targeted learning standard for this task?
4. What is the real-life topic of this task? What other real-life topic might be useful as a context for the same mathematics in the task?
5. What can you learn about students as they engage in and respond to the task?
6. How might you provide scaffolding to a student who struggles without lowering the cognitive demand of the task too much?
7. What do you expect students' wonderings and questions to be regarding the task?
8. What do you expect students' misunderstandings to be regarding the task?
9. What might make the mathematics of the task less or more challenging to meet the needs of students?
10. How do you propose assessment of the task should be effectively managed and facilitated?