



EUHSD Mathematics

"Thinking Through a Lesson" Template

LESSON DETAILS (Unit, Lesson, Investigation):

PART 1 – PLANNING FOR STUDENT THINKING

1. DO THE ACTIVITY YOURSELF

What is the level of cognitive demand? Where are the opportunities for students to explore, conjecture, make sense, justify, generalize, etc?

2. IDENTIFY LESSON GOALS

MATHEMATICAL CONTENT

What mathematical ideas do you intend all students to know and understand as a result of the lesson?

What mathematical habit(s) of mind will you focus on?

CLASSROOM CULTURE

How will this lesson support the ongoing development of a 'Mathematical Culture of Effort and Growth'? (see the "TDG Teacher Reflection Tool")

What mathematical habit of interaction will you focus on?

3. ANTICIPATE STUDENT THINKING

What different ways of thinking do you anticipate that students might develop while working on this problem? How are the different ways of thinking connected?

What do you anticipate students might conjecture, justify, or generalize about?

4. SCRIPT KEY QUESTIONS AND PROMPTS TO ASSESS and/or ADVANCE STUDENT THINKING

- *What are the key mathematical ideas that you want students to understand? Identify the questions or prompts that might create the opportunities for students to engage in thinking about those.*
- *What potential difficulties might students encounter? Script questions or prompts that may help them overcome these hurdles.*
- *What are some unproductive pathways that students might take? Develop questions or prompts that may help re-focus these students.*
- *What are ways to extend and/or generalize the task? Develop questions or prompts to engage students who may have resolved the task as posed before you are ready to pull the whole class back together.*

What key prompts will you use in service of your "Classroom Culture" goals?

PART 2 - SCRIPT THE LESSON FLOW

LAUNCH

*How will you introduce the task in a way that establishes HIGH cognitive demand?
How will you launch in a way that allows ALL students access?
How will you launch to ensure accountable, private think time for ALL students?
How will you get students thinking as quickly as possible and avoid an overly lengthy launch?*

Grouping:
Time:
Materials:
Actions/Script:

EXPLORE

*Which of your key prompts might be useful in this phase?
Do your questions successfully maintain the cognitive demand of the task?*

Grouping (circle all that apply): Individual, Pairs, Groups of __, Whole Class
**Are there times you will move in and out of whole class grouping during this phase? If so, when?*

Time:
Materials:
Actions:

SUMMARIZE

*Which of your key questions/prompts might be useful in this phase?
Which of your anticipated student approaches might you want shared during this phase?*

Grouping:
Time:
Materials:
Actions:

CLOSING:

*How will you engage students in reflecting about their thinking and self-assessments of their understanding, progress, and needs?
How will you wrap up the day - summarizing students' exploration, key discoveries, and lingering questions
What evidence will you collect that will give you more information about their thinking?*