

PLAN AND ANTICIPATE

- identify and unpack the mathematical goal
- adjust the lesson or activity based on the evidence from prior lesson(s)
- select or adapt a task that provides students with a problem to solve rather than a procedure to follow
- anticipate multiple solution paths, accessibility of context, language challenges.

SET UP THE TASK

- develop *individual* and *collective* understanding of task, context, and language
- elicit and build connections to prior knowledge and experience
- set expectations for working, solution, justification, tools.

REFLECT ON PEDAGOGICAL AND LEARNING GOALS

- examine learners' work for evidence of developing understanding and issues that need to be addressed
- analyze evidence of learner participation, identity, and/or group processes
- review video and/or observation notes in relation to professional learning goals.

SUPPORT STUDENTS AS THEY GRAPPLE WITH THE TASK

- provide opportunities for collaborative work
- circulate, monitor, and interact with students to coach mathematical participation
- support without lowering cognitive demand (ask questions, help students get started).

STEER THE WHOLE CLASS DISCUSSION TO SURFACE THE BIG IDEAS

- guide students to make explicit connections between their strategies and solutions and the key mathematical ideas
- help students formalize ideas by generalizing patterns, solidifying theories and/or proving/disproving conjectures
- connect procedures to concepts
- provide students with the opportunity to apply, revise, or summarize their understanding.

FACILITATE WHOLE CLASS DISCUSSION OF LEARNER THINKING AND WORK

- strategically select and sequence strategies
- elicit multiple strategies and a diversity of voices
- cultivate rich explanations (wait time; asking why and how; revoicing)
- intentionally make space for and assign competence to marginalized and/or low-status student contributions
- represent student thinking visually
- engage students in making sense of each other's thinking
- connect students' ideas to standard language, notation, and/or models.

