RESPONSIVE MATH TEACHING
RMT

THE SCHOOL DISTRICT OF PHILADELPHIA

PLAN AND ANTICIPATE
- identify and unpack the mathematical goal
- 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.

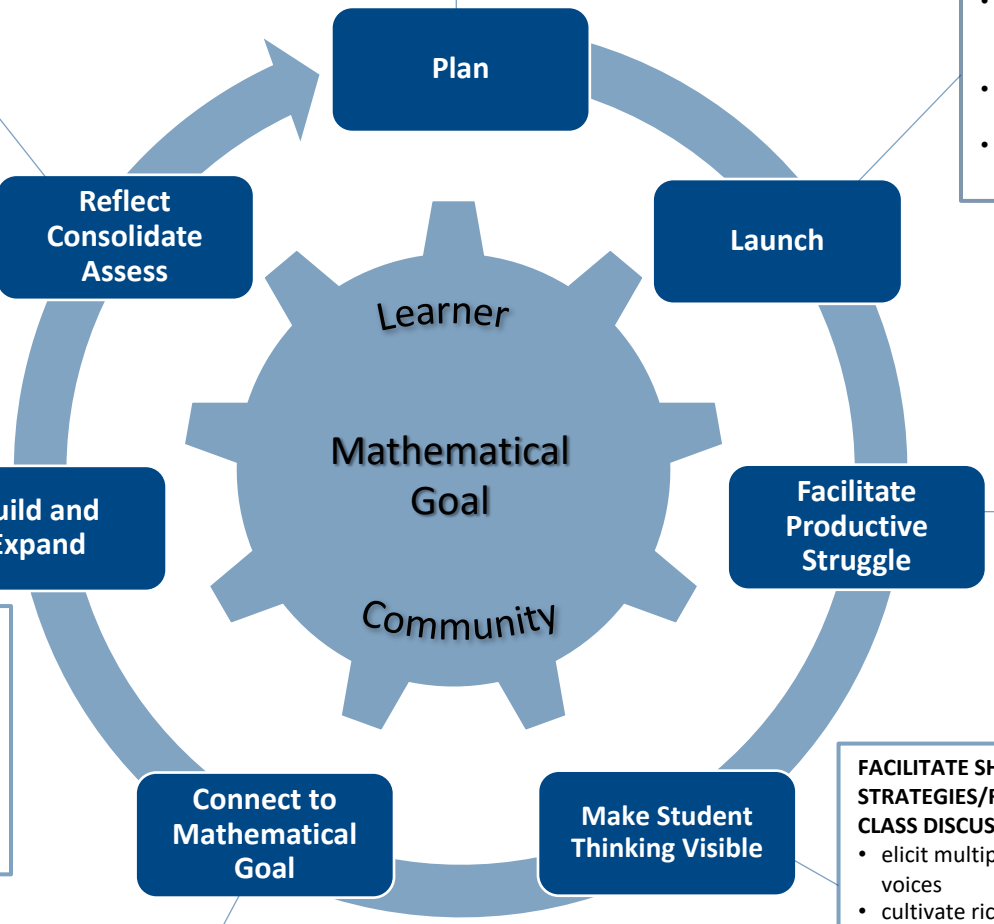
SUPPORT STUDENTS TO ENGAGE IN PRODUCTIVE STRUGGLE
- provide opportunities for collaborative work
- circulate, monitor, and interact with students to coach mathematical participation
- support without lowering cognitive demand (ask questions, help students get started).

FACILITATE SHARING OF STUDENT STRATEGIES/REASONING THROUGH WHOLE CLASS DISCUSSION
- elicit multiple strategies and a diversity of voices
- cultivate rich explanations (e.g., 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
- strategically select and sequence strategies.

GUIDE STUDENTS TO MAKE EXPLICIT CONNECTIONS BETWEEN THEIR STRATEGIES AND SOLUTIONS AND THE KEY MATHEMATICAL IDEAS
- introduce standard language, notation, models
- help students formalize ideas by generalizing patterns, theories or proving/disproving conjectures
- connect procedures to concepts.

FACILITATE APPLICATION AND PRACTICE THAT BUILDS OFF STUDENTS' CURRENT UNDERSTANDING
- pose a similar problem (vary context, structure, and/or number complexity)
- provide differentiated support, instruction, and/or practice.
- teach a mini-lesson on an identified need.

ENGAGE STUDENTS IN CONNECTING AND CONSOLIDATING UNDERSTANDING OF THE MATHEMATICAL IDEAS
- whole class debrief
- collaborative creation of a chart to anchor problem solving
- written reflection
- exit slip for formative assessment.



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