

## LESSON GOALS

<b>Mathematical Content</b> <i>What is the mathematical relationship or big idea being developed?</i>	<b>Mathematical Practice/Habits</b> <i>In what ways will students be engaged in mathematical thinking and doing?</i>	<b>Social/Normative</b> <i>What norms for learning and interaction are being established or maintained?</i>

## LAUNCH

*How will you introduce the task in a way that establishes HIGH cognitive demand?  
Will you introduce the task in writing, using a picture, verbally, other? Why?  
How will you launch in a way that allows ALL students access to begin thinking as quickly as possible?  
How will your launch reflect your lesson goals (content, practice, and social)?  
How will you foster accountable, private think time?*

### Actions/Script:

## EXPLORE

*How will students work during this time: individually, pairs, groups? Why?  
How will you manage the transition to small group work so that everybody's ideas are heard?  
How will each group member contribute? Will there be roles? Which roles? Why?  
What structures will you need to put in place so that you are freed up to LISTEN to student conversations?*

### Predict Student Approaches and Difficulties:

*Related to mathematical content goals*

### Questions to ask groups:

*To orient students toward lesson goals w/out reducing cognitive demand*

## EXPLORE (continued...Practice and Social Goals)

### Predict Student Approaches and Difficulties:

*Related to mathematical practice and social goals*

### Questions to ask groups:

*To orient students toward engaging in mathematical practice or social goals*

## SUMMARIZE

*What student ideas will be shared?*

*How will you manage status during this phase so that "stars" do not emerge and, rather, multiple ways of being smart are valued?*

*What sequence will you share them in? Why this sequence? What are other possible sequences?*

*How will your summarize portion support ALL of your lesson goals? How will you highlight content, practice, and social?*

*What structures will you use to encourage students to listen to, respond to, question, and expand on other students' mathematical ideas?*

### Hypothesized Student Work Sequence Plan:

*Besides bringing the whole class together to LAUNCH and SUMMARIZE, will you use a whole class format at any other time (to address a common struggle, to share an important student idea, to deepen exploration, to extend, etc)? What student thinking/conversation would suggest to you that this might be necessary?*

## REFLECTION

*How will you engage students in reflecting on their own thinking/activity in relation to ALL of your lesson goals? What questions will you ask?*

*What evidence will you collect that will give you more information about their thinking?*

*What will the next task be that might build on STUDENT THINKING from this lesson?*