

Problem Solving Lesson Plan

Lesson Component	Time (minutes)	Teacher Moves	Student Moves
Materials Set-up	3	<ul style="list-style-type: none"> Crew established routines to set up teacher & student materials. Including manipulatives, student solving paper, pencils, chart paper with problem visible for students at meeting space. Helpful hints: Use table captains, music, structure of room to help speed of routine. 	
Launch	5-7	<ul style="list-style-type: none"> Teacher tells the story of the problem, reads the problem, then covers the problem. Teacher uncovers & rereads problem. Teacher asks a comprehension questions (data used to get a possible preview of teaching point). Teacher does not give away problem type, answer, but rather gets a sense of student current thinking and ensures that students are primed for thinking and grappling right away. <p><i>*Launch may vary depending on: grade level, rug stamina, and goal of the lesson.</i></p>	<ul style="list-style-type: none"> 3 students are strategically chosen to retell the problem. Actively listening on carpet. Goal of understanding what the problem is asking & brainstorming ideas of how to share.
Worktime	8	<ul style="list-style-type: none"> Expectations are set for independent "grapple time" in crew. Visual timer is used to help students self monitor. Strategies are used by students to work the whole time. (try multiple ways to solve, write how you solved in words, check your work, etc.) Teachers use the Anticipatory Framework to check for understanding & record observations and determine trends in students' thinking. When conferencing with students: use neutral response, ask open ended questions (What are you thinking? How are you solving? How do you know?). The goal is to not lead or assume, but listen and attempt to understand students' thinking. Based on observations & conferences teachers make decisions about an appropriate learning target, which students should share their work & questions to guide the discourse. 	<ul style="list-style-type: none"> Use their strategy & model to represent their thinking. Solve in multiple ways Prepare to explain their thinking to the crew or their partner at the carpet. Show their reasoning with an answer, number sentences to match their work & the problem.
Clean up routine	1-3	<ul style="list-style-type: none"> Crew established routine to create a smooth & efficient transition from work time to the meeting space including clean up of student materials. 	<ul style="list-style-type: none"> Work as crew to clean up manipulatives & solving materials.
Share & Discourse	15	<ul style="list-style-type: none"> 2-3 Students share their work (strategy & model) with their crewmates as the teacher scribes on the chart paper. Teacher records strategy & model, answer, & number sentence/ equation that matches the students' work all elicited from the student in their own words. Students engage in discourse about the strategies guided by strategic questions from the teacher to guide discourse toward daily learning target. 	<ul style="list-style-type: none"> Participate by listening & speaking. Attempt to understand others' strategies. Notice & wonder about strategies and models of their peers. Ask questions