Math Talk Action Plan

The Way We Were	Getting Started	Getting Better	The Goal
Questioning Techniques			
The teacher asks all the questions while the students listen. The questions are often looking for short answers and are frequently asked of certain students to make sure they are paying attention.	• Ask your students questions that focus more on their thinking than answers. Ask follow-up questions about their methods. • You are still the main questioner. *Why do you think that?* and *What makes you say that*? are two good question to begin with.	• Begin to ask more open ended questions that may have more than one solution. • Give your students question prompts, such as the Math Talk bookmarks) and encourage them to ask questions about other students work. • Practice Math Talk questioning between partners and small groups.	• You can now step away as Math Talk is student initiated and not dependent upon the teacher although you may still guide the dialogue. • Students ask appropriate questions that require explanations, then listen and respond respectfully. • Students continue the discussion until everyone understands and is satisfied with the answers.
Explaining Mathematical Thinking			
Students think independently while they are solving problems. The teacher and student are concerned with the correct answer more than the process.	• Begin to ask more probing questions that require students to think in order to answer, such as *Why did you choose that strategy?* or *What's another way to solve it?*	• You begin to ask and model questioning that elicits detailed descriptions and multiple strategies for the same problem. • Students are beginning to voluntarily ask probing questions and explain why answers are incorrect/correct.	• As the teacher, you follow the math conversations closely, encouraging students to make complete explanations and provide evidence for their answers. • Students are able to describe their strategies and provide evidence as to why their answer is correct. • Classmates listen actively and respond appropriately, explaining why they agree or disagree with the problem solver.
Who's Responsible for What?			
The students listen to the teacher and do their work. If they are having trouble with a problem they ask the teacher who explains it to them. The discussion is between the student and the teacher.	• You are still leading the discussions but you are now asking for student input. When students solve problems, ask other students whether they agree or disagree and why. Ask if anyone has a different way they solved the problem. • The students answer questions they are asked, and they begin to listen more carefully for good strategies and errors they can comment on.	• You will start to notice some co-teaching and co-learning taking place in your classroom. • Begin to distance yourself from the conversations although you are nearby to redirect and encourage higher-level thinking as necessary. • Students are following the techniques that have been modeled.	• Students are working independently, able to evaluate their classmates work and thinking, as well as their own. • They help each other in understanding and correcting their errors. • Students listen actively in order to respond and participate. • Students use rationale questions and explanations. You are there to support and guide your students as they clear up misconceptions.

Created by Genia Connell 2014