

Passion For Teaching and Learning
Grade 1: The Brownie Dilemma
Strings and Math Talk

SPEAKER 1: Number strings I started right at the beginning of the year. It's funny. They start with these quick images called bulletin boards and Kathy Fosner, she actually calls them billboards. Like, you know when you drive your car down the road, you pass by a billboard pretty quickly. So, you have to be able to come up with strategies to see what's on the billboard really fast. So, we start there, and it's these quick images of, you know, frogs or flowers, and the students find ways to group them so they don't have to count by ones. And then we transferred into the rec and rack, the math rack that you saw me using, and the math rack that you saw me using, and the math rack is an amazing tool that helps my students develop the five and ten structures in numbers that are so important. It's amazing when a student just doesn't see an eight as an eight but actually as a five and a three, and then that seven is a that five and a two, and it builds in that hierarchical thinking that that seven nests inside that eight. And so it's an amazing, amazing tool, and we used it all year. We did, you know, every day or every other day we would do a quick lesson at the start, and that's where these strategies developed over the course of the year. So, what's interesting about the math rack is that the students are the ones who really take control of the lesson, and my job is just to sort of be the interpreter of what they're sharing. So, you know, using arrows and different colors and trying to understand how they're seeing the numbers and when something is getting bigger and something is getting smaller, but it's about them talking and me just trying to hear what they're saying. It's always a great opportunity, too, to ask students to share what somebody else was thinking, sometimes one student can share what another student's strategy was in an even better way and make something even more clear. With the students, you can see that they have really got a good ability now to talk with each other about their strategies and share their thinking. You know, it starts off slow at the beginning of the year, but when you give them time every day to practice talking about how they see the numbers, what the numbers look like, and listening to each other talk about numbers in their math thinking, it creates the math talk right there. Students now understand how to communicate with each other in mathematical language. At the beginning of the year, you know, it's hard. They don't have the language yet. They are not sure how to talk about the numbers. So, you know, it does take some time to build their talk. I mentor it. They listen to each other. Now, at the end of the year, you know, actually really by the time you hit Christmas it's almost leading itself. It's amazing how if you do these lessons consistently how quickly they actually develop their own vocabulary and, you know, by the second term it's easy. They've got words and they've got their ways of sharing it, and some of the funnest things are when students come up with their own names for strategies. At first what they were calling now compensation, they used to call it a traderoo,

which was really sweet, and that's exactly what it was. It was, you know, trading one bead from the top to the bottom. Now, they're ready to call it compensation, I guess because it comes out of my mouth occasionally, but it got in there and it got in their understanding.