

Guide Entry:

## **Moving Third Graders From Guessing and Checking to Reasoning and Proof for Understanding Multiplication**

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Multiplication skills are important for third graders to master, however, fluency and speed are not the only goal I have for my students. Using Common Core Mathematical State Content and Mathematical Practice Standards, I would like for my students to understand the concept of multiplication and be able to reason about a problem, test a conjecture, and justify their answers. My objective is assist my students in building a toolbox of strategies to jumpstart the reluctant starter and build perseverance to send them on the path to better understanding. I want my students to combine given information with mathematical intuition to make a reasoned guess when prompted.

Mathematical reasoning and proof can be developed in students at a young age. As they look for structure and patterns in the lives around them, they begin to ask questions that try to discover what effect these patterns have on them. Students who reason in their everyday lives can bring this skill into the math classroom as they look for these same types of patterns in the manipulations of numbers. In fact, developing reasoning in my students is essential for them to understand math.