Cognitive Guided Instruction

CGI: What is it?

Cognitive Guided Instruction (CGI) is the way we teach Math Standards. It is a philosophy of teaching, not a curriculum. It is a practice that has years of research behind it. It is based on the premise that all children come to the class with mathematical thinking skills. We use what they know to help them solve problems. We learn multiple strategies to solve problems because we gain a deeper understanding of math concepts, when we can solve problems in different ways. This allows for multiple ways to learn different problems in a way that makes sense to students.

How does CGI Differ from Traditional Math?

Using CGI, teachers start with what children already know about math and build on it to move them toward deeper levels of understanding. Children solve problems in ways that make sense to them using real-world contexts. During problem solving, multiple strategies are shared, honored and highlighted. Children are expected to share their thinking and collaborate with others. Students are encouraged and supported to persevere through challenging problems, and mistakes are viewed as opportunities for learning. We focus on conceptual understanding as a foundation, and gradually progress to more abstract representations of math concepts.

This approach is <u>different from the traditional method</u> of teaching the computation (addition, subtraction, and multiplication, and division) first, and then expecting students to apply the concepts to problem solving situations.

What Parents Can Do to Help their Child with Mathematics

<u>Listen to your child's thinking and ask questions</u>

- Why do you think that? ♣
- Can you explain how you got that? ♣
- How do you know? ♣

- Does your answer make sense? ♣
- Can you solve it a different way?
- Practice/reinforce strategies used at school

<u>Try not to tell your child a strategy.</u>

- The strategy will come with understanding and practice.
- If your child is stuck, try to help them make sense of the problem by asking questions like—what do we know so far? What are we trying to find out?.
- Ask your child word problems as they come up in everyday life.
- Always ask 'WHY?'