

Unit Description

Show Me How You Know – A Unit in Kindergarten Problem Solving

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Problem solving is difficult for many Kindergarten students. The Common Core State Standards require students to conceptualize, represent and explain problems in a variety of ways. A young Kindergarten student must be able to represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions or equations (CC.K.OA1). These types of activities, combined with a variety of problem types, broaden students' conceptual understanding, and deepen academic rigor. Cognitively Guided Instruction (CGI) is a research based, inquiry-focused approach to teaching mathematics that provides teachers with a framework for understanding student thinking and reasoning, so that appropriate story problems can be posed (Carpenter Et al). My unit will focus on how I can use CGI in my classroom, along with my district math curriculum (Math Expressions, Karen Fuson), to strengthen the reasoning and problem-solving skills of my Kindergarten students. Since I have a large population of English Language Learners, my unit will also incorporate many language development activities that will allow students to make context connections, leading them to rich discussions regarding possible modeling strategies.