

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2014 Volume I: Picture Writing

Using Students' Pictorial Representations to Promote Mathematical Thinking

Guide for Curriculum Unit 14.01.11 by Elizabeth M. E. Nelson

With the advent of the Common Core State Standards (CCSS), expectations have been raised for educators and students across the board, but particularly for elementary mathematics. The majority of the math curricula available to teachers do little to instill the mathematical practices required to meet these challenging math content standards. One significant fault across curricula is the weakness in providing ways to help students in the transition from providing concrete to abstract representations of their mathematical thinking as they apply a variety of strategies to solve problems. In this unit, I propose that allowing students to use pictorial representations they have created will help to increase mathematical thinking and understanding. By valuing what students are bringing to the early elementary classroom and what is meaningful to them, we, as educators, can facilitate bridging the gap between the concrete and abstract, which is critical in ensuring that students are successful in years to come.

(Recommended for Mathematics, grades K-2)

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