Curriculum Units by Fellows of the National Initiative 2016 Volume V: The Number Line in the Common Core

Moving from Rods to Number Lines to Understand Fractions

Guide for Curriculum Unit 16.05.03, published September 2016 by Kathleen Gormley

The Common Core standard states students should be able to understand a fraction as a number on the number line; represent fractions on a number line diagram. My intent for this unit is to shepherd fractions from an area model to the number line as I begin to explain and represent fractions as a distance or measurement. Student over generalize and pigeon hole their understanding of a fraction as a piece of something or a combination of two whole numbers instead of understanding that a fraction is a number in and of itself.

In order to gain a thorough understanding of mathematical ideas, students need to be able to make connections and integrate their learning of concepts in a variety of ways. Through the use of manipulatives, students can connect ideas to gain a deeper understanding. Student's achievement grows when they have access to manipulatives and are explicitly taught how these manipulatives can assist their learning. This unit will be infused developing number sense through the use of base ten blocks. These tools are an excellent way to bring students from whole number understanding to the understanding of fractions.

(Developed for Mathematics, grade 3; recommended for Mathematics, grades 2-5)

https://teachers.yale.edu

© 2023 by the Yale-New Haven Teachers Institute, Yale University, All Rights Reserved. Yale National Initiative®, Yale-New Haven Teachers Institute®, On Common Ground®, and League of Teachers Institutes® are registered trademarks of Yale University.

For terms of use visit https://teachers.yale.edu/terms of use