



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

Diyogi (Navajo Rug) and the Number Line

Guide for Curriculum Unit 16.05.08, published September 2016

by Jolene Smith

The fraction and number concept are common difficulties students' have to learn and understand when solving fraction problems. Using hands on manipulative to help in learning the fraction concept will benefit students learning the fraction model. The manipulative; the Navajo loom and rug concept are ideal examples I will use when teaching fractions components and the number line. When analyzing a loom, measurements of fraction are used as the loom is in the process of designing. As the weaving begins, I model and inform my students of the type of patterns we will use to create the patterns while using fraction. My students begin to see they are using measurement of fractions.

The unit will cover math concepts of fraction and how to create and use fractions on a number line. I will introduce my unit on chart papers explaining the all the components of fractions. This unit will help students in enduring the understand fractions while weaving a Navajo rug. The math skills of number line and fraction will incorporate the Dine culture and language (the loom and the Navajo rug). The activities of the loom and rug are ideal learning tools for students, parents, and educators who want their students to be engage in learning the number line and fractions while learning about the Diné's culture of weaving Navajo rugs.

(Developed for Diyogi and the Number Line, grade 5; recommended for Mathematics, 4-5)

<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