SAU 50
Grade 3
Mathematics
Fractions

Fractions: develop understanding of fractions as numbers.

SAU 50 District Competency:

Students will independently use their learning to apply fractional reasoning and strategies to solve a problem.

Essential Questions

- What is a fraction and why do we need them?
- How are fractions different from other numbers?
- How is a fraction the same and/or different from a whole number?

Acquisition

Students will demonstrate the following to meet the standards.

- I can correctly place unit fractions on marked and unmarked number line diagrams.
- I can recognize and generate equivalent fractions demonstrating with a visual fraction model.
- I can express whole numbers as a fraction and recognize fractions that are equal to whole numbers.
- I can compare and order fractions using the <, >, = symbols demonstrating with a visual fraction model.

Standards

NH College and Career Ready Standards

Key to Standard Notation:

3.NF.1: 3 *(grade level)* **NF** *(domain: Number and Operations--Fractions)* **1** *(number of the standard)*

Number and Operations –Fractions
Develop understanding of fractions as numbers.
3.NF.1: Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned

into *b* equal parts; understand a fraction *a/b* as the quantity formed by a parts of size 1*/b*.
3.NF.2: Understand a fraction as a number on the number line; represent fractions on a number line diagram.
3.NF.2.a: Represent a fraction *1/b* on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size *1/b* and that the endpoint of the part based at 0 locates the number *1/b* on the number line.
3.NF.2.b: Represent a fraction *a/b* on a number line diagram by marking off a lengths *1/b* from 0. Recognize that the resulting interval has size *a/b* and that is endpoint locates the number *a/b* on the number line.
3.NF.3: Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
3.NF.3.a: Understand two fractions a equivalent (equal) if they are the same size, or the same point on a number line.
3.NF.3.b: Recognize and generate simple equivalent fractions, ½ = 2/4, 4/6 = 2/3. Explain why the fractions are equivalent, by using a visual fraction model.
3.NF.3.c: Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.
3.NF.3.d: Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions by using a visual fraction model.

New Hampshire College and Career Ready Standards

References:

National Governors Association Center for Best Practices, Council of Chief State School Officers. (2010). *Common Core Standards for Mathematics* (United States, National Governors Association Center for Best Practices, Council of Chief State School Officers). Retrieved August 10, 2016, from http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf

Math is fun/definitions. (n.d.). Retrieved April 17, 2017, from http:/www.mathisfun.com/definitions