Unit Map 2012-2013

Monroe #2 - Orleans BOCES (Regional Collaboration)

Collaboration / Math 3* / Grade 3 (Math Regional Curriculum)

Wednesday, September 26, 2012, 2:52PM

Standard/Module: Proficiency in fractions 3.NF.2 (Week 24, 8 Weeks)

Stage 1: Desired Results

Standards Focus

- Major (70%) connects to 3.NF.1, 3.NF.3

Grade 3 Proficiency Maps.pdf

Standards

NYS: CCLS:Mathematics, NYS: 3rd Grade , Number & Operations—Fractions

3.NF Develop understanding of fractions as numbers.

- 2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
- 2a. 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.
- 2b. 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 its endpoint locates the number a/b on the number line.

Enduring Understandings

1. Fractions can be placed on a number line
2. 0-1 on the number line represents a whole
3. The further right I travel on the number line, the greater the number.
4. Understand *a/b* as the sum of 1/*b*, *a* times

Essential Questions

1. How do you determine where to place the fraction 1/*b* or *a/b* on a number line?
2. What does the numerator/denominator represent as it applies to the number line?

Critical Content

Fractions:

-numerator/denominator

-what a fraction represents*

-what a unit fraction represents*

-what a whole number represents*

*as it applies to the number line

Skills	Vocabulary
Students must be able to: -identify the whole as the space between 0-1 -partition a number line between 0-1 into *b* equals parts when placing the fraction 1/*b* -represent the fraction 1/*b* on a number line -show *a/b* on a number line by marking off the correct number of equal 1/*b* parts -show *a/b* on the number line	Tier 2: partition, interval, end point Tier 3: number line, numerator, denominator, whole number, fraction, number line diagram

Stage 2: Assessment Evidence

Assessments

Fill in the Number Line
Formative: Test: Written

Fractional numbers are missing from a number line and students fill in the missing fractions. Students are asked to pick one fraction in particular and write about why they placed it on the number line in the location they chose and why it is a correct placement of the fraction.

Stage 3: Learning Plan

Learning Activities	Resources
Practice counting fractions on a number line where whole numbers are pre-written. For example, point to/write on the number line: 1/6, 2/6, 3/6, 4/6, 5/6, 6/6, 7/6, 8/6, 9/6, etc. Students would make 5 equally spaced marks between 0 and 1, and continue with the equally spaced marks after 1 whole (6/6).	www.illuminations.nctm.org www.illustrativemathematics.org

Differentiation Opportunities

Use easier unit fractions to start with and build students up to more challenging fractions. Students can also use sentence strips as number lines and fold it into equal pieces. By marking the folds, they can see how the number line is partitioned into x number of equal parts. Fold a new sentence strip for each new unit fraction.

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