Unit Map 2012-2013

Monroe #2 - Orleans BOCES (Regional Collaboration)

Collaboration / Math 4* / Grade 4 (Math Regional Curriculum)

Wednesday, October 31, 2012, 10:41AM

Standard/Module: Proficiency in Fractions - 4.NF.1 (Week 23, 9 Weeks)

Stage 1: Desired Results

Standards Focus

- Major (70%) Connects with 4.NF.2

4th Grade Proficiency Map.pdf

Standards

NYS: CCLS:Mathematics, NYS: 4th Grade , Number & Operations—Fractions

4.NF Extend understanding of fraction equivalence and ordering.

- 1. Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

Enduring Understandings

1. Fraction a/b is equivalent to fraction (nxa)/(nxb).
2. The number and size of the parts of two fractions may differ, even though the two fractions themselves are the same size; equivalent fractions.
3. The identity property help find equivalent fractions.

Essential Questions

1. How do we know if fractions are equivalent?
2. What do equivalent fractions look like?
3. Can you explain why equivalent fractions may have different numbers in the numerators and denominators, but can represent the same quantity?

Critical Content

1. Fractions

- unit fractions (1/b)
- benchmark fractions (1/2, 1/3, 1/4, 3/4, 2/3)
- Numerator
- Denominator

2. Visual fraction models

- area models
- linear models(number lines)

5. Equivalent fractions

- **Must** multiply by one, in the form of b/b to get an equivalent fraction

Skills	Vocabulary
1. Students will use visual fraction models to explain why a fraction a/b is equivalent to a fraction (nxa)/(nxb). 2. By using the visual fraction models, students will recognize how the number and size of the parts differ even though the fractions themselves are the same size. 3. Students will recognize and generate equivalent fractions.	Tier 2: visual, differ Tier 3: fraction, fraction models, equivalent fractions, numerator, denominator

Stage 2: Assessment Evidence

Assessments

Formative: Other: Quiz

Given five fractions, students will be asked to generate an equivalent fraction and explain why they're equivalent in words or with models/drawings.

Stage 3: Learning Plan

Learning Activities	Resources
This standard refers to visual fraction models. This includes area models, linear models (number lines) or it could be a collection/set models. This standard extends the work in third grade by using additional denominators (5, 10, 12, and 100). Students can use visual models or applets to generate equivalent fractions.	www.illustrativemathematics.org www.illuminations.nctm.org Technology Connection: http://illuminations.nctm.org/activitydetail.aspx?id=80

Differentiation Opportunities

Activities and assignments can be tiered regarding difficulty level.

Assignments and activities will need tiered levels of support as well. For example, manipulatives can be used in class and prompts and reminders can be on some students' papers.

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