# Unit Map 2012-2013

***Monroe #2 - Orleans BOCES (Regional Collaboration)***

***Collaboration / Math 6* / Grade 6 (Math Regional Curriculum)***

Wednesday, October 31, 2012, 11:46AM

**Standard/Module: Proficiency with Rational Numbers 6.NS.4** (Week 3, 4 Weeks)

## Stage 1: Desired Results

### Standards Focus

- Additional (10%) 6.EE.3

6th Grade CCS Map.pdf

### Standards

**NYS: CCLS:Mathematics, NYS: 6th Grade , The Number System**

6.NS Compute fluently with multi-digit numbers and find common factors and multiples.

- 4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12.
- Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor.

| Enduring Understandings | Essential Questions |
|---|---|
| 1. A common factor of two whole numbers is a number that can divide both numbers exactly<br><br>2. A common multiple of two whole numbers s a number that can be divided by both numbers exactly<br><br>3. Understand that GCF and LCM are ways to discuss number relationships and multiplication and division<br><br>4. Understand the distributive property using sums and its' use in adding numbers 1-100 with a common factor. | 1. What is the difference between LCM and GCF?<br><br>2. When would you apply the GCF instead of the LCM?<br><br>3. How can GCF and LCM help you use the distributive property when adding? |

### Critical Content

1. Greatest Common Factor

    a. limited to two whole numbers less than

    or equal to 100

2. Least Common Multiple

a. two whole numbers less than or equal to 12

3. Distributive property

a. to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor

| **Skills** | **Vocabulary** |
|---|---|
| 1. Find the greatest common factor.<br>2. Find the least common multiple<br>3. Using the distributive property<br>4. Computer fluently using the distributive property of multiplication over addition | Tier 2:<br>less than<br>equal<br>multiple<br><br>Tier 3:<br>Lest Common Multiple<br>Greatest Common Factor<br>Distributive Property<br>Common factor<br>Common multiple |

## Stage 2: Assessment Evidence

**Assessments**

**Skill based**
**Formative: Performance: Skill Demonstration**

Find the greatest common factor of 24 and 60. Find the least common multiple of 6 and 10. Use the

distributive property to show 15 + 75.

**Problem Task**
**Formative: Performance: Skill Demonstration**

Hot dogs come in packs of 8. Buns come in packs of 12. How many packs of hot dogs and bags of buns would you have to buy to have an equal number of hot dogs and buns?
You need to make gift bags for a party with the same number of balloons and candy in each bag. One package of candy has 24 pieces. One package of balloons has 20 balloons. You need to use all the candy and all the balloons. What is the greatest number of gift bags that you can make containing an equal number of items?

## Stage 3: Learning Plan

| Learning Activities | Resources |
|---|---|
| Solve for LCM and/or GCF using factor towers, Venn diagrams, and factor trees.<br>Use a model to show that 4(9 + 2) is four groups of 9 and four groups of 2. | http://engageny.org/common-core/<br>http://illustrativemathematics.org/<br>www.livebinders.com/play/play/52180<br>http://illuminations.nctm.org/<br>http://www.mathsisfun.com/geometry/polyhedron.html<br>http://www.korthalsaltes.com/ |

**Differentiation Opportunities**

**REVIEW CONCEPT OF FRACTIONS**

Finding Fractions in Real World Applications
Identifying fractions at home, school, etc can help your student become comfortable with fraction terms. Use fractions when preparing and serving food, to describe your family, or in other familiar home situations. Encourage your student to answer questions such as these:

- What fraction of eggs is left in the carton?
- What fraction of the pizza is there in two slices? three?
- What fraction of our family is female?
- What fraction of our family is home by 4:00 P.M.?
- What fraction of your allowance did you spend this week? What fraction did you save?
- What fraction of the day did you spend at school? What fraction did you spend sleeping or doing homework?

**REVIEW CONCEPT OF FRACTIONS: ADDING/SUBTRACTING**

Add Up!
Materials paper and pencil, number cards Step 1 Make a set of number cards with a fraction on each card. Use
fractions with numerators 1 through 5 and denominators 2 through 6.
Step 2 Player 1 turns over two cards and finds the sum of the two fractions shown. Then player 2 turns over two cards and finds the sum of those two fractions. The player whose fractions have the greater sum wins.
Another Way to Play:

- Both players turn over three cards and find the sum of their fractions.
- The player whose fractions have the lesser sum wins.
- After 5 rounds, add each player's sums for each of the rounds. The player with the greater sum wins.

<< Previous Year

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