

Weekly Lesson Plan Format

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School: Semmes Elementary

Week of October 31-Nov. 4
Grade Level: 5th

- I. **Subject/Content Area**
Math/Least Common Multiple, add and subtract fractions with unlike denominators, fractions as decimals as percentages

For next 3 sections list all standards, concepts, objectives for the week.

- II. **ALCOS**
- 3.) Solve word problems that involve decimals, fractions, or money.
 - Converting fractions and mixed numbers to decimals and percent
 - 4.) Determine the sum and difference of fractions with common and uncommon denominators.
 - Using least common multiple (LCM) to find common denominators
 - Solving word problems involving addition and subtraction of fractions with common and uncommon denominators

- III. **Concepts**
- **Least Common Multiple (LCM)**- the lowest possible multiple any pair of numbers have in common; is the least multiple that a group of numbers has in common. The LCM helps when adding and subtracting fractions.
 1. Make a list of multiples for each whole number.
 2. Continue the list until at least two multiples are common to all list.
 3. Identify the common multiples.
 4. The Least Common Multiple (LCM) is the smallest of these common multiples.
 - **Decimal**- a number that includes a period called a decimal point. The digits to the right of the decimal point are a value less than one. A decimal is another way to represent fractional numbers. The decimal uses place value to express the value of a number as opposed to a fraction that uses a numerator and denominator.
 - **Fraction**- a rational number of the form a/b , where a is called the numerator and b is called the denominator.
 - **Percent**- a ratio that compares a number to one hundred. The symbol for percent is %.
 - Change the denominator so we can add the fractions together or find the difference between the two fractions.

- IV. **Objectives**
- The students will be able to demonstrate the problem solving process by constructing a list of common multiples of two numbers, then finding the Least Common Multiple (LCM)
 - The students will be able to demonstrate finding the LCM to be able to add or subtract unlike fractions.
 - The students will be able to separate skittles and make fractions of the different colors and amounts. Student understands that numbers can be represented in a variety of equivalent forms using whole

numbers, decimals, fractions, and percent.

- The students will complete an assessment on LCM.
- The students will be able to construct a new cereal with recommended daily values in percent.(science)

V. Daily Plans

Monday

Materials: math notebook, math textbook pages 462-463, pencils, smart board, problems LCM multiples of 6- 6, 12, 18, 24, 30, 36, 42, 48, 54, 60. Multiples of 4 - 4, 8, 12, 20, 24, 28, 32, 36, 40.

Teaching Procedures: write the number 6 and it's multiples on the smart board, write the number 4 on the smart board and its multiples. Find the LCM of each group listed...multiples of 4, multiples of 2; multiples 3 and 6; multiples 9 and 3; multiples 7 and 5.

Evaluation: observe the students working in their math textbook by walking around and helping them; I will go over the problems worked in the math textbook and check for understanding

Tuesday

Materials: math notebook, math textbook pages 462-463, pencils, smart board, problems, LCM of 4 and 8, LCM of 3 and 5, LCM of 2 and 7, LCM of 2 and 6, LCM of 5 and 10, LCM of 6 and 4.

Teaching Procedures: work the problems on the smart board, call on students to come to smart board and work problems, observe the students working problems in their math textbooks, model and guided practice

Evaluation: observe the students working in their math textbooks, observe students working on smart board.

Wednesday

Materials: math notebook, math textbook pages 426-427, pencils, www.youtube.com/watch?NR-1&v=V6pZyY6mM3g decimal point rap, skittles

Teaching Procedures: introduce percent with skittles and how a fraction can be turned into a percent with the multiple of 100. (See attached sheets with producers and questions) *Skittles / Math Riddles* by Barbara McGrath

Evaluation: Read *Skittles / Math Riddles* observe the students filling out the skittle sheet and the amount and color of skittles each group has; observe the students creating answers to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and turn them into percent. Listen and sing the rap song with the students.

Thursday

Materials: practice book page 102, pencils, cereals with nutrition facts which are in percent's (science), smart board to produce a new cereal and nutrition facts in percent's.

Teaching Procedures: introduce adding and subtracting with unlike denominators (this is where the skill of LCM comes in), review decimals as percent's,

Evaluation: student participation, teacher observation, student questions, and the product of a brand new cereal the whole class constructed on the smart board.

Friday

Materials: test

Teaching Procedures: review LCM for test Ms. Lowery is conducting.

Evaluation: assessment of the student's ability to find LCM.

Higher order thinking questions:

- Find the LCM of 18 and 24. Why can't 48 be the LCM of 18 and 24?
- Jan says that when you find the sum $1/4$ and $1/6$, you have a lot of choices for a common denominator. Frank says there is only one choice for the common denominator. Who is correct and why?
- Of the coins made by the U.S. Mint in one year, 73% were pennies and 6% were quarters. Suppose you could have all of the coins of one type. Alex says you would get more money if you had all the pennies. Austin says you would get more money if you had all the quarters. Jenna says it depends on how many of the two coins were made. Who is right and why?
- Make a graph showing the amount of different colored skittles.

Skittles Galore

Materials:

- Bag of skittles
- 1 package paper towel
- Overhead projector
- White boards (1 for each student)
- Smart board
- Markers
- Worksheet assessment for skittles

Procedures:

1. Using overhead projector or whiteboard with the whole class, review different ways to represent equivalent forms of whole numbers, fractions, decimals, and percentages.
2. Tell the students that today they will show an understanding of representing numbers solving problems by dividing objects within a group.
3. Divide the students into groups of four.
4. Cut open the bag of skittles. Pour out a small pile in the middles of each group's table.
5. Have each group count the number of candies in their pile.
6. Students should record this information on their white boards.
7. Have students divide the candies into groups by color, count the number of each color and record it on their white board. Students record each number in the form of a fraction and label it with the color.
8. After the students have written the numbers representing the pile of skittles showing the whole number, and division of colors showing fractions, tell them to convert each number on their white board to a decimal.
9. Tell the students to write the percentage of their candies that represent each color.
10. Distribute skittles recording handout, have students fill in the blanks.
11. Have two students collect the materials.
12. Teacher will observe the students answers by calling on different students to answer the questions from the data.
13. Provide feedback.
14. Allow students to eat skittles and distribute more skittles for the students to eat.

Skittle Galore

1. Count the number of skittles in your pile and record the number.
2. Separate skittles in the group pile by color. Record the number for each color listed below.

Red

Orange

Yellow

Green

Other

3. What fraction of your skittles represents each color?

Red

Orange

Yellow

Green

Other

4. Convert each fraction of the color skittle listed into a decimal.

Red

Orange

Yellow

Green

Other

5. What percentages of your skittles are...

Red

Orange

Yellow

Green

Other

Science

Materials

- Cereal nutrition labels
- Overhead projector
- Smart board
- Paper
- Markers
- Rulers

Procedures

- Put a cereal label on the overhead projector.
- Read over and describe the daily recommended values to the students (which are in percentages).
- Students whole group and with teachers help will construct a new cereal .
- Students will construct new name for the cereal.
- Each student will construct a cereal box image and graphics.
- Students will be able to apply recommended daily values with teacher's instruction.
- Students will be instructed to color the images they have constructed.
- The students work will be put on display on the backpack cabinet.

Evaluation:

- Students will be observed constructing their new cereal.
- The teacher will assess the student's knowledge of how to read a percentage.
- The students will be asked questions on nutrition. (Is sugar good for you? Is fiber a good nutrient to have in your cereal? Which vitamins should be put in your new cereal? Can you make great tasting cereal and good for you all in the same box?)

VI. **Reflection** - complete at the end of the week

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