**Gina L. Gullo**

**Lesson Plan**

**1.** **Lesson:** Division 9-3 S**ubject:** Mathematics **Date:** April 3, 2014

**2. Target Grade Level:** 4th grade

**3. PDE Standards:**

2.1.4.F. Understand the concepts of addition and subtraction and their inverse relationships; understand the concepts of multiplication and division; use the four basic operations to solve problems, including word problems and equations.

2.2.4.A. Develop fluency in the use of basic facts for the four operations.

2.2.4.B. Multiply single- and double-digit numbers and divide by single digit numbers, add and subtract fractions with like denominators, and add and subtract decimals.

2.2.4.D. Estimate sums and differences, products, and quotients, and conclude the reasonableness of those estimates.

**PA Common Core Standards:**

CC.2.1.4.B.2. Use place‐value understanding and properties of operations to perform multi‐digit arithmetic.

CC.2.2.4.A.1. Represent and solve problems involving the four operations.

**4. Learning Objectives and Aligned Summative Assessments:**

| **Learning Objectives** | **Aligned Summative Assessments** |
| --- | --- |
| Given a two large division problems (4 digit ÷ 1 digit), the student will use estimation and place value patterns to estimate the answer to each question with 100% accuracy. | 2 large division estimation problems (4 digit ÷ 1 digit) on unit test. |

**5. Materials Needed:**

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| -division cards (1 set/ group) |  |
| -math text and paper for each student |  |
| -Homework: Reteach 9-3 worksheet & Basic Facts |  |

**6. Expectations for Behavior and Class Activities:**

* The student will follow teacher directions.
* The student will actively engage in all activities to her best ability.
* The student will use respectful language towards others.
* The student will keep hands and feet to him or herself.
* The student will remain quiet and seated during the lesson.
* The student will use a quiet raised hand to respond to or ask questions.

**7. General or Specific Accommodations for Special Needs Learners:**

* Students with attention challenges will be allowed to stand at their desks rather than sit. They will also be given extra attention to help redirect them during the lesson and allowed to take verbally requested breaks as needed throughout the lesson.
* Students with learning challenges will be conferenced with during independent work to double check for thorough understanding of all concepts introduced or revisited in this lesson.

**8. Description of Learning Activities**

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| **Lesson Implementation** |
| Introductory Activity:  Go over the previous two lessons and then ask students if they think they can be combined. Ask students that if you had 6523 cupcakes and you wanted to share them with your 81 students how you could estimate about how many cupcakes to give each student.  Modeling/Demonstration:  Solve the cupcake problem for the students and then walk through the visual learning activity from the text book. When solving the cupcake problem, think aloud to figure that 81 is close to 80 by rounding. Then multiply 80 by 10 to see that 800 is less than 6523. Now, round 6523 to the nearest 100 to make it have only 2 non-zero digits. This would be 6500. Finally, note that 6500 is close to 6400, and 64 is a multiple of 8. Then use 6400 ÷ 80 to estimate the answer of 80 cupcakes per student. Use the same think-aloud strategies to solve and model the visual learning activity in the text.  Guided Practice and Feedback:  Work through text book questions 1, 3, and 5 with the students and do the others only if needed. Then talk through numbers 7 and 8.  Independent Practice:  Have students independently try the first row of problems in the Independent Practice section of the text. Depending on how they do when they are gone over, reteach or move on. Break students into 6 groups. Hand out cards with amounts of various materials on them. Have students read the directions on the cards (see attached) to see how many of that material is needed to make an item and then calculate about how many they can make using estimation.  Closing/Review/Preview:  Have some groups share their findings and preview that tomorrow the students will move on to dividing without estimation. Finally have the students write the homework (Reteach 9-3 & Basic Facts WS) in their planner.  Formative Assessment:  Students will be formatively assessed during guided practice, independent practice in cooperative learning groups, and through homework. Basic Fact WSs are now included in homework due to students struggling in this domain.  Accommodations:  Students of higher math skill levels will be given the practice side of the 9-3 homework assignment to do rather than the reteaching lesson.  Students who are struggling with division and division concepts will be grouped with students showing strong skills during the cooperative learning group portion of the lesson. |

**9. Potential Areas of Difficulty with the Content and Correction Procedures:**

Students are at different levels of division mastery. Students struggling with these skills may use a multiplication chart if needed to facilitate skill acquisition of concepts during instruction, but will be encouraged to work on these skills at home.

Students may need further practice before the summative assessment. Students will be encouraged to do the opposite side of the 9-4 worksheet to review. They will be required to do 3 items from that worksheet as part of a review homework.

**10. Summative Assessments:**

Estimate to solve the following problems.

1. 1527 ÷ 3
2. 6298 ÷ 7

**11. Reflections**: The students did very well with this lesson and seemed to have fun. As noted in 9-2, I retaught the previous (very related) lesson today, which helped with this one. They did the work here much better and seem to have it down.

**12. Sources:**

Charles, A., *et. al.* (2010). *Scott Foresman-Addison Wesley* *enVisionMATH: Common Core.* Upper Saddle River, NJ: Pearson Education, Inc.

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Basic Fact Practice: Division (1-3)

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| 1 ÷ 1 = \_\_\_\_ | 6 ÷ 2 = \_\_\_\_ | 2 ÷ 3 = \_\_\_\_ |
| 4 ÷ 1 = \_\_\_\_ | 16 ÷ 2 = \_\_\_\_ | 12 ÷ 3 = \_\_\_\_ |
| 10 ÷ 1 = \_\_\_\_ | 2 ÷ 2 = \_\_\_\_ | 0 ÷ 3 = \_\_\_\_ |
| 9 ÷ 1 = \_\_\_\_ | 10 ÷ 2 = \_\_\_\_ | 30 ÷ 3 = \_\_\_\_ |
| 3 ÷ 1 = \_\_\_\_ | 12 ÷ 2 = \_\_\_\_ | 18 ÷ 3 = \_\_\_\_ |
| 8 ÷ 1 = \_\_\_\_ | 24 ÷ 2 = \_\_\_\_ | 9 ÷ 3 = \_\_\_\_ |
| 11 ÷ 1 = \_\_\_\_ | 14 ÷ 2 = \_\_\_\_ | 36 ÷ 3 = \_\_\_\_ |
| 2 ÷ 1 = \_\_\_\_ | 0 ÷ 2 = \_\_\_\_ | 21 ÷ 3 = \_\_\_\_ |
| 6 ÷ 1 = \_\_\_\_ | 20 ÷ 2 = \_\_\_\_ | 3 ÷ 3 = \_\_\_\_ |
| 0 ÷ 1 = \_\_\_\_ | 8 ÷ 2 = \_\_\_\_ | 27 ÷ 3 = \_\_\_\_ |
| 5 ÷ 1 = \_\_\_\_ | 22 ÷ 2 = \_\_\_\_ | 33 ÷ 3 = \_\_\_\_ |
| 12 ÷ 1 = \_\_\_\_ | 2 ÷ 2 = \_\_\_\_ | 15 ÷ 3 = \_\_\_\_ |
| 7 ÷ 1 = \_\_\_\_ | 18 ÷ 2 = \_\_\_\_ | 24 ÷ 3 = \_\_\_\_ |

