## D.L. Sims Elementary
### K-5 Math Framework Lesson Plan

**Name of Teacher:** Mr. Randolph  
**Grade Level:** 5

### Math Workshop

~Modeling, Explicit Teaching and Enabling Students to Think, Learn, and Apply Mathematical Concepts~

### Targeted Standard/Element(s)

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCC5.NBT.6</td>
<td>Find whole-number quotients of whole numbers with up to four digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</td>
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<tr>
<td>MCC5.NBT.1</td>
<td>Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</td>
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</tbody>
</table>

### Enduring Understanding(s)

- Multiplication may be represented by rectangular arrays/area models.
- Products may be calculated using invented strategies.
- The properties of multiplication and division help us solve computation problems easily and provide reasoning for choices we make in problem solving.
- Students will understand that like whole numbers, the location of a digit in decimal numbers determines the value of the digit.

### Essential Question(s)

- How can estimating help us when solving division problems?
- How can you tell where to place the first digit of a quotient without dividing?
- How do you solve and check division problems?
- Why does placement or position of a number matter?
- How are decimal numbers placed on a number line?

### Vocabulary

- multiplication symbols (x, *, (, 3a), commutative, distributive, associative, identity properties, decimal fraction, decimal Point, hundred thousands, hundreds, hundredths, millions, ones, place value, ten thousands, tens, tenths, thousands

### Materials

- Book, workbooks, manipulative, technology,

### Opening

10 % of Instructional Time

**Math Mini-lesson:**

- **Day 1:** Investigating 2 digit divisors using base ten.
  - The teacher will model for students using the Promethean board the value of numbers using manipulative.
  - Students that continue to struggle with multiplication/division fluency will be given a multiplication chart.

- **Day 2:** Problem Solving Strategies using draw a diagram
  - The teacher will model for students using a diagram how to solve selected problems.

- **Day 3:** Place value chart for review
  - For visual support, students will be given a place value graphic organizer.

- **Day 4:** Assessment over this week concepts

- **Day 5:** Performance Task “Division Four in A Row”
| **Work Period** 80% of Instructional Time | **Guided Practice:**  
Day 1: Students will divide problems using base ten blocks in groups assisted by teacher.  
**Students will be given value charts to assist with manipulative base ten blocks.**  
Day 2: Students will work on problem solving using draw a bar model.  
Day 3: Students will explore the three forms to write a number (expanded, word, and standard) and explore model, read, and writing decimals to thousandths.  
- Students will be given visual examples of expanded, word, and standard forms.  
- Students that need additional support will review expanded, word, and standard form in smaller groups with white erase boards.  
Day 4: Assessment over this week concepts  
Day 5: Performance Task “Division Four in A Row”  
**Independent Practice:**  
Day 1: Students will continue with pg. 48 with the use of base ten blocks as guidance to solve problems and partial quotients of division.  
Day 2: Students will continue problem solving with the bar model from problem 1 & 2 on pg. 57  
Day 3: Students will continue to demonstrate their understanding with pg. 16 & 17.  
Day 4: Assessment over this week concepts  
Day 5: Performance Task “Division Four in A Row”  
**Math Centers:** Rotation of groups by days  
http://www.multiplication.com/games/  
http://www.softschools.com/math/games/divisiong.jsp  
http://www.softschools.com/quizzes/math/multiplication_and_division_word_problems/quiz746.html  
**Application:**  
**Plan for Differentiation:**  
**Extension**  
* Use of bigger numbers for the partial quotients division.  
* Solve problem solving by using the strategy draw a diagram.  
**Intervention**  
* Students that struggle with multiplication & division facts will work on computer with basic multiplication & division facts.  
* More use of base ten blocks for conceptual division  
* Small group for better understanding  
| **Closing** 10% of Instructional Time | **Group Share/Math Talk Assessment:**  
Mathematician’s chair  
New things you learned  
**Evaluation:**  
Ticket out the door  
Journal writing  
Assessments on  
Performance Task: “Division Four in a Row”  
**Based upon the student’s individual IEP goals, accommodations will be given.**  
**Homework:**  
Day 1:  
Day 2:  
Day 3: pg. 58 Workbook |
<table>
<thead>
<tr>
<th>Day</th>
<th>Homework</th>
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</thead>
<tbody>
<tr>
<td>Day 4</td>
<td>No</td>
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<tr>
<td>Day 5</td>
<td>No</td>
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<tr>
<td>Problem</td>
<td>No</td>
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<tr>
<td>Solving</td>
<td>No</td>
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<tr>
<td>Workbook</td>
<td>No</td>
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<tr>
<td>Worksheets</td>
<td>No</td>
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