Grade 5  Unit 1 Developing Fluency with Multiplication and Division  Mathematics

### Unit Goals – Stage 1

**Beginning of the Year Days:** 3  
**Unit 1 Number of Days:** 32

**Unit Description:** In **Unit 1** students build on their work from previous grade levels to refine their strategies for multiplication and division in order to reach fluency in multiplication. Students reason about dividing whole numbers with two-digit divisors to build strategies for accurate computations. Students continue to develop more sophisticated strategies for division to become flexible and efficient with the standard algorithm in Grade 6. Students explore numerical expressions and interpret calculations. This unit includes opportunities to both evaluate expressions and reason about expressions without calculating a solution.

**Materials:** “Multiple Markers” for class number line, base-ten blocks, place-value chart, whiteboard

<table>
<thead>
<tr>
<th>Standards for Mathematical Practice</th>
<th>Transfer Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMP.1 Make sense of problems and persevere in solving them.</td>
<td>Students will be able to independently use their learning to…</td>
</tr>
<tr>
<td>SMP.2 Reason abstractly and quantitatively.</td>
<td>• Make sense of never-before-seen problems and persevere in solving them.</td>
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<tr>
<td>SMP.3 Construct viable arguments and critique the reasoning of others.</td>
<td>• Construct viable arguments and critique the reasoning of others.</td>
</tr>
<tr>
<td>SMP.4 Model with mathematics.</td>
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<tr>
<td>SMP.5 Use appropriate tools strategically.</td>
<td></td>
</tr>
<tr>
<td>SMP.6 Attend to precision.</td>
<td></td>
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<tr>
<td>SMP.7 Look for and make use of structure.</td>
<td></td>
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<tr>
<td>SMP.8 Look for and express regularity in repeated reasoning.</td>
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**Standards for Mathematical Content Clusters Addressed**

<table>
<thead>
<tr>
<th>Numbers and Operations in Base Ten:</th>
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<tbody>
<tr>
<td>[m] 5.NBT.A Understand the place value system.</td>
<td></td>
</tr>
<tr>
<td>[m] 5.NBT.B Perform operations with multi-digit whole numbers.</td>
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<tr>
<th>Operations and Algebraic Thinking</th>
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<tr>
<td>[a] 5.OA.A Write and interpret numerical expressions</td>
<td></td>
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<table>
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<tr>
<th>UNDERSTANDINGS Students will understand that…</th>
<th>ESSENTIAL QUESTIONS Students will keep considering…</th>
</tr>
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<tbody>
<tr>
<td>• The place value system is based on powers of 10.</td>
<td>• What is the underlying pattern?</td>
</tr>
<tr>
<td>• Estimates help check reasonableness of exact quotients.</td>
<td>• How can estimating help us when solving problems?</td>
</tr>
<tr>
<td>• Multiplication and division calculations of whole numbers can be solved and explained in many ways.</td>
<td>• What are some ways to represent the quantities and/or solve the problem?</td>
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<tr>
<th>KNOWLEDGE Students will know…</th>
<th>SKILLS Students will be skilled at and/or be able to…</th>
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<tr>
<td>• The definitions of the academic vocabulary words such as braces, brackets, compatible number, evaluate, exponent, numerical expression, parentheses, and powers of 10.</td>
<td>• Evaluate expressions with parentheses.</td>
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<tr>
<td>• Use mental strategies for multi-digit whole number operations.</td>
<td>• Write and interpret numerical expressions.</td>
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2017-2018 LBUSD
### Assessed Grade Level Standards

#### Standards for Mathematical Practice

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<tr>
<th>SMP.1</th>
<th>Make sense of problems and persevere in solving them.</th>
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#### Standards for Mathematical Content

**Number and Operations in Base Ten**

<table>
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<tr>
<th>[m] 5.NBT.A</th>
<th>Understand the place value system.</th>
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<tbody>
<tr>
<td>5.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>
</tr>
<tr>
<td>5.NBT.2</td>
<td>Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>[m] 5.NBT.B</th>
<th>Perform operations with multi-digit whole numbers and with decimals to hundredths.</th>
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<tr>
<td>5.NBT.5</td>
<td>Fluently multiply multi-digit whole numbers using the standard algorithm.</td>
</tr>
<tr>
<td>5.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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**Operations and Algebraic Thinking**

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<tr>
<th>[a] 5.OA.A</th>
<th>Write and interpret numerical expressions.</th>
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<tr>
<td>5.OA.1</td>
<td>Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</td>
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<tr>
<td>5.OA.2</td>
<td>Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.</td>
</tr>
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</table>

**Key:** [m] = major clusters; [s] = supporting clusters; [a] = additional clusters
# Evidence of Learning – Stage 2

## Assessment Evidence

### Unit Assessment

Students will complete various item types to indicate level of mastery/understanding of the unit standards as outlined in this guide.

Claim 1: Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency. Concepts and skills that may be assess in Claim 1:

- **5.NBT.A**
  - The student represents powers of 10 by using whole-number exponents.

- **5.NBT.B**
  - The student adds or subtracts multi-digit whole numbers in non-contextual mathematics problems.
  - The student multiplies multi-digit whole numbers.
  - The student determines 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.

- **5.OA.A**
  - The student writes or identifies a numerical expression that records a calculation represented with words.
  - The student interprets numerical expressions in words without evaluating them.
  - The student evaluates numerical expressions with grouping symbols.

For selected content, students will need to...

### Claim 2

Students can solve a range of well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies. Standard clusters that may be assess in Claim 2:

- **5. NBT.B**

### Claim 3

The students can clearly and precisely construct viable arguments to support their own reasoning and critique the reasoning of others. Standard clusters that may be assessed in Claim 3:

- **5.NBT.A.2**
- **5.NBT.B.6**

### Claim 4

The student can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems. Standard clusters that may be assessed in Claim 4:

- **5.NBT.B**

## Other Evidence

### Formative Assessment Opportunities

- Go Math! Show What You Know- pages 3 & 61
- Opening Task – Tomato -Tomato or Wacky Parentheses Task
- Classroom Challenge (FAL) - City Park
- Go Math! Performance Task Chapter 2- Feature Presentation
- Go Math! Standards Practice Book- quizzes or homework
- Mini- Assessment Multi-Digit Multiplication

- Go Math! Getting Ready for the Smarter Balanced- pages SB 1-4, SB7, SB17-20,
- District Unit 1 Resource- exit tickets and quizzes
- English (Word or PDF) Spanish (Word or PDF)
- myPD Course #2531 Creating an Assessment in Synergy
## Learning Plan – Stage 3

### Teacher Resources

We encourage using the following resources throughout the unit.

- Think Central
- myPD Course #2821 Go Math! Digital Resources
- myPD Course #7445 Math Unit Overview: Grades 2 – 5
- myPD Course #7539 Grade 5 Unit 1 Overview
- myPD Course #7401 Standards for Mathematical Practice Resources (includes posters and teacher prompt cards)
- myPD Course #3578 Understand the Problem: Notice and Wonder Strategy (includes paper resources)
- myPD Course #2899 Notice and Wonder
- myPD Course #7455 Lesson Planning Tools (includes 5E template)
- Engage, Explore and Evaluate Problems
- Mathematical Task Monitor Chart
- Which One Doesn’t Belong? Suggestions: #5, #6, #43, #19, #20
- Estimation 180
- Order of Operations Poster
- District Unit 1 Resource (Word or PDF)
- Classroom Number line

- **Good Questions for Math Teaching** (Given to teachers at Tri 3 training 2014-2015)
- **Implementing the Common Core State Standards through Mathematical Problem Solving Grades 3 – 5** (Given to teachers at Tri 3 training 2014-2015)

### Beginning of the Year Resources

Days 1 – 3 can be used to build a positive classroom culture, support a growth mind set where mistakes are embraced, and establish routines that may involve the use of mathematical tools. We encourage using these resources before the unit and throughout the school year.

#### Cooperative Group Work/Classroom Norms
- Pyramid Cup Challenge
- String Geometry
- Growth Mindset vs. Fixed Mindset Poster
- Setting Up Positive Class Norms
- Youcubed Mindset Cards
- myPD Course #7223 What is Youcubed?
- Week of iMath

#### Mathematical Discourse
- Math Conversation Guide Table Tent
- Talk Moves Poster
- Talk Moves/SMP Bookmarks
- Math Talk Bookmark

#### Using Appropriate Tools Strategically
- Go Math! Manipulative Kits
## Learning Plan – Stage 3

### Suggested Sequence of Key Learning Events and Instruction

<table>
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<tr>
<th>Days</th>
<th>Learning Target</th>
<th>Success Criteria</th>
<th>Go Math! Lessons and Activities and Core Resources</th>
<th>Supplemental Resources:</th>
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</table>
| Daily      | I will know basic math facts by…                                                 | • Saying facts orally.                                                          | • Maintaining Fluency Through Fact Families (green booklet) pgs. 1 –10, 13 - 28  
  o myPD Course #2872 Maintaining Fluency through Fact Families - Addition and Subtraction  
  o myPD Course #2863 Maintaining Fluency through Fact Families - Multiplication and Division  
• Go Math! Strategies and Practice for Skills and Facts Fluency  
  o myPD Course #3495 Using the Go Math! Fact Fluency Resources                                                  | • myPD Course #2910 Basic Facts Math Games  
• myPD Course # 3350 Fact Fluency in Upper Grades                                                                            |
| Daily      | I can use mental math strategies to add, subtract, multiply, and divide by…     | • Participating in daily Number Talks.                                             | • Number Talks Strategies and Problem Sets, Grades 2-5  
  • Number Talks Planning Form                                                                                             | • myPD Course #7446: Elementary Number Talks           |
| Daily      | I can identify and mark multiples of 2 through 12 by…                          | • Participating in a daily Multiple Markers routine.                             | • Multiple Markers for 100 Days  
  • Multiple Markers for 100 Days- color  
  • Multiple Markers Instructions                                                                                          | • myPD Course #2818 Multiple Markers - Daily Routine |
| 90 minutes per week (Schools/grades with ST Math) | I will persevere in problem solving as I play interactive games to help me understand math by… | • Developing long term problem solving skills.                                   | ST Math Objectives  
• Whole Numbers  
• Multi-Digit Multiplication  
• Multi-Digit Division                                                                                                     | ST Math Tips  
• Assure your login to stmath.com (Teacher Console)  
• Utilize your STMath Start Up guide (2015 – 2016 version)  
• Create LBUSD/ST Math ticket to JiJi (from pdf in startup guide) |
# Learning Plan – Stage 3

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<tr>
<td>Before the Unit</td>
<td>Give the “Show What You Know” Diagnostic Assessment on Chapter 1 pg. 3 and Chapter 2 pg. 61. Determine if students need intervention for the unit prerequisite skills. *Use the Diagnostic Table if needed for intervention options: On-level, Strategic, Intensive, and Independent.</td>
<td></td>
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</table>
| 4    | I can explore a real world situation by… |  - Estimating whether the answer is reasonable.  
- Participating in a whole class discussion about the strategy used and reasonableness of answer. | OPENING TASK – 3 Act Task Tomato-Tomato  
  **Teacher Resource:**  
  o 3 Acts of a Mathematical Lesson  
  o 3 Act Task PowerPoint  
  o myPD Course #3480 Facilitating a 3 Act Math Task  
  **Student Resource:**  
  o 3 Act Task Recording Sheet | Alternate Opening Task  
  - Problem Solving Grades 3-5 Task 2.9 Wacky Parentheses pgs. 29-31  
  o Student Task Page |
| 5 – 7 | I can explain the relationship between digits in different places of a multi-digit number by… |  - Using models such as base-ten blocks.  
- Using a place-value chart to recognize the 10 to 1 relationship among place value positions.  
- Comparing the value of different digits by using phrases such as, “___ is 10 times as much as ___” and “___ is 1/10 of ___.”  
- Answering questions such as…  
  o How can you describe the relationship between two place-value positions?  
- Lesson 1.1: Investigate - Place Value and Patterns | Conceptual Understanding:  
  - Exit Ticket - Comparing Digits  
  **Coach’s Note:**  
  You might start with – Investigate pg. 5 as a whole class discussion. The teacher uses questions from left side of TE and the students’ books can remain closed. Students will be using base ten models to construct viable arguments (SMP #3).  
  o Draw Conclusions pg.6 #1 – 2  
  o Make Connections- Use the place value chart on pg. 6, skip tables used throughout the lesson.  
  o Pgs. 7 – 8 #13 – 21  
  **SKIP Lesson 1.2: Aligns to** | Application:  
  - Illustrative Mathematics Teacher Guide: Millions and Billions of People  
  o Student Task Page |
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<td>8 – 10</td>
<td>I can use and explain exponents to show powers of 10 by…</td>
<td>• Using models such as base-ten blocks.</td>
<td>4.NBT.A.2 • SKIP Lesson 1.3: Aligns to 3.OA.B.5</td>
<td>Conceptual Understanding:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Using a basic fact and a pattern to multiply mentally by multiples of 10, 100, and 1000.</td>
<td></td>
<td>• What Comes Next?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Explaining the pattern for how the number of zeroes in a product relates to the power of 10.</td>
<td></td>
<td>Application:</td>
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<tr>
<td></td>
<td></td>
<td>• Writing notation of exponents to express powers of ten.</td>
<td></td>
<td>• Exit Ticket- Two numbers multiply to give 36,000. What might the two numbers be?</td>
</tr>
<tr>
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<td></td>
<td>• Answering questions such as…</td>
<td></td>
<td>• Go Math! Ch. 1 Mid-Chapter Checkpoint pgs. 25 – 26 #1-8, 11-15, 18-20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Why can we just add (or subtract) zeroes when multiplying or dividing by a multiple or power of 10?</td>
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<tr>
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<td></td>
<td>o What pattern do you see? Will that always be true when you multiply a number by 10?</td>
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<tr>
<td>11 – 12</td>
<td>I can solve real world problems involving multiplication and division by…</td>
<td>• Illustrating and explaining my calculations using equations, rectangular arrays, and/or area models.</td>
<td>Lesson 1.9: Problem Solving - Multiplication and Division</td>
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<tr>
<td></td>
<td></td>
<td>Note: The strategy in lesson 1.9 does not align to the standards. 5.NBT.6. requires students to use strategies based on place value, properties of operations, and/or the relationship between multiplication and division.</td>
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| 13 – 14 | I can find the product of multi-digit numbers by… | • Applying my understanding of the area model.  
• Multiplying factors that have been decomposed.  
• Estimating products to check the reasonableness of my solution.  
• Answering questions such as…  
  o Why is it important to estimate the answer before multiplying?  
  o Is ____ a reasonable estimate for ____ x ____? Explain your reasoning.  
  o How does the model show the sum of the partial products? | **Coach’s Note:** Use the **Think Smarter** problems from pg. 42 #8 Beads, Beads, and More Beads or #9 Yummy Casserole! as formative assessment for students’ multiplication and division strategies. (These were typed for you to use for student tasks.)  
  • What type of strategies are your students using?  
  • Are the students using invented strategies or going straight to the standard algorithm?  
  • Can they explain their strategy or the algorithm used?  
  • What are the common misconceptions? | **Rule of Thumb:** Connect standard algorithm to the area model to connect the procedural skill of Grade 5 to conceptual understanding developed in previous grades.  
Use the lesson “Multiply and Conquer” by NCTM Illuminations to help connect the standard algorithm to the area model.  
Teacher Resource:  
• LearnZillion: Use an Area Model for Multiplication of Two-Digit Numbers by Two-Digit Numbers  
Application  
• Problem Solving Grades 3-5  
  Task 2.6 Kevin and Glenn Estimate, pgs. 22-23  
  o Student Task Page  
• Exit Ticket - Is the product of 42 x 63 over or under 2,400? |
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| 15 – 16 | I can extend my knowledge to understand that the partial product strategy is a vertical representation of the calculations illustrated in the area model for multiplication by… | 5.NBT.5. o Why does breaking the greater factor into 10 and another addend make this process easier? | LearnZillion Lesson: Understand Multiplication Using Partial Product | Application:  
- Exit ticket - How can you calculate 23 x 21 if the 2 button on your calculator is broken? |
| 17 – 18 | I can use my conceptual understanding of multiplication with whole numbers by… | 5.NBT.5.  
- Incorporating place value concepts.  
- Multiplying factors that have been decomposed.  
- Using the Distributive Property with expanded form.  
- Estimating products to check the reasonableness of my solutions  
- Answering questions such as…  
  - Where do you see partial product in the area model?  | Coach's Note:  
Start with LearnZillion Lesson: From Partial Products to Standard Algorithm  
This lesson will show how conceptual understanding connects to the abstract. Have students Notice and Wonder.  
For more procedural skills and fluency use…  
- Lesson 1.6: Multiply by 1-Digit Numbers  
- Lesson 1.7: Multiply by 2-Digit Numbers  | Procedural Skills and Fluency:  
- Maintaining Fluency Through Fact Families (green booklet), pp. 14 – 22  
- Personal Math Trainer 1.7-Evaluate  
- Mini-Assessment Multi-Digit Multiplication  
Application:  
- Illustrative Mathematics Teacher Guide: Elmer’s Multiplication Error  
  - Student Task Page |
# Learning Plan – Stage 3

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| 19   | I can explain the relationship between multiplication and division by… | • Using arrays, the area model, and the Distributive Property to solve division problems with multiplication.  
  o Answering questions such as…  
  o What is the relationship between multiplication and division?  
  o How does multiplication help you solve a division problem? | • Lesson 1.8: Relate Multiplication to Division  
  o Mathematical Practice pg. 38 #13  
  o Math Journal TE pg. 38 | |
| 20 – 21 | I can solve real world problems by… | • Using my understanding of multiplication and division of whole numbers.  
  • Communicating my reasoning.  
  • Checking to see if my answers make sense. | FORMATIVE ASSESSMENT LESSON  
Classroom Challenge: City Park | FAL Classroom Challenge Teacher’s Guide Grades 2-5 |
| 22   | I can estimate quotients with division of whole numbers with up to four digit dividends and two-digit divisors by… | • Using patterns and basic facts and/or compatible numbers to help estimate.  
  • Using place value.  
  • Using the relationship between multiplication and division.  
  • Answering questions such as…  
  o When is it more reasonable to have an estimate versus an exact answer?  
  o How can multiplication be used to help you estimate?  
  o Why is estimation useful when solving a division problem? | **Note:** The use of division standard algorithm is *not* expected until Grade 6.  
**Rule of Thumb:** Building on earlier division work will help students develop understanding of what is happening with two-digit divisors.  
Introduce strategy of estimation with 1-Digit Divisors by using Lesson 2.2 pg. 69 #8 – 15  
• Lesson 2.5: Estimate with 2-Digit Divisors  
  o Write Math pg. 84 #23 | Application:  
• Using mental computation, will the quotient of 812 ÷ 48 be over or under 16? Explain how you know. |
## Learning Plan – Stage 3

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| 23-24 | I can relate the dividend, divisor, and quotient in a division problem to the parts of an area model by… | • Estimating with mathematical reasoning.  
• Using place value.  
• Using the relationship between multiplication and division.  
• Answering questions such as…  
  o How is using an area model for a division problem similar to an area model for a multiplication problem? | **Rule of Thumb:** 5.NBT.6 suggests an area model as a model for students to use to illustrate and explain their work of dividing two-digit dividends by two-digit divisors.  
• Instead use LearnZillion Lesson: Area Model for Division  
• **SKIP Lesson 2.1** The strategy presented in this lesson does not meet the expectations of 5.NBT.6.  
  The standard requires students to use strategies based on place value, the operations, and/or the relationship between multiplication and division. Illustrate and explain calculations by using equations, rectangular arrays, and/or area models  
• **SKIP Lesson 2.3** This lesson creates a procedure using base ten blocks that doesn’t allow student to use strategies named in the standard. | Application:  
• 5.NBT.6 Exit Ticket  
• Exit ticket - Eighty-four children in four grades are arranged into teams with the same number on each team. How many teams are there and how many children might there be on each team?  
• LearnZillion Lesson: Solve Multi-Digit Whole Number Division by Using an Area Model |
| 25-26 | I can use partial quotients to solve problems with division of whole numbers by … | • Estimating with mathematical reasoning.  
• Using partial quotients to find and subtract multiples of the divisor.  
• Using the properties of operations.  
• Using the relationship between multiplication and division. | Introduce strategy of Partial Quotient with 1-Digit Divisors by using Lesson 2.2 pg. 69 #4-7  
• **Lesson 2.4: Partial Quotients** | **Procedural Skills and Fluency:**  
• Maintaining Fluency Through Fact Families, pp. 23 – 28  
**Conceptual Understanding:**  
• Whole Number Quiz |
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<td>27</td>
<td>5.NBT.6 I can interpret a remainder and decide how to best express it by…</td>
<td>- Answering questions such as…&lt;br&gt;  o Why might the strategy partial quotients division be more efficient than an area model?&lt;br&gt;  o How is partial quotient similar to an array model?&lt;br&gt;  o What do the partial quotients represent?&lt;br&gt;  - Understanding what the divisor and dividend represent in the problem.&lt;br&gt;  - Understanding if the remainder may be used or not.&lt;br&gt;  - Understanding that 1 might be added to the quotient to solve the problem.&lt;br&gt;  - Answering questions such as…&lt;br&gt;  o Does the remainder in an answer always mean how much is left over?&lt;br&gt;  o How will the remainder affect your answer?&lt;br&gt;</td>
<td>- Lesson 2.7 Interpret the Remainder&lt;br&gt;  o Start with Unlock the Problem “Hiking Trail” pg. 89 Or&lt;br&gt;  o Try This! “Sleeping Bags” pg. 90 (These were typed for you to use for student tasks.)&lt;br&gt;  - Exit Ticket- Think Smarter #10 pg. 92</td>
<td>Application:&lt;br&gt;  - Beginning of Year Celebration Task&lt;br&gt;  - Pumpkin Patch Task</td>
</tr>
<tr>
<td>28</td>
<td>5.NBT.6 I can solve real world comparison problems by …</td>
<td>- Using bar models when quantities are multiples of each other.</td>
<td>- Lesson 2.9: Problem Solving Division&lt;br&gt;  o Advanced Learners TE 99&lt;br&gt;  o Think Smarter #8 pg. 100</td>
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# Learning Plan – Stage 3

## Suggested Sequence of Key Learning Events and Instruction

<table>
<thead>
<tr>
<th>Days</th>
<th>Learning Target</th>
<th>Success Criteria</th>
<th>Go Math! Lessons and Activities and Core Resources</th>
<th>Supplemental Resources:</th>
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</table>
| 29 – 30 | I can write and interpret numerical expressions by…                           | • Matching a numerical expression to word problems or scenarios.  
  • Writing an expression to match a calculation that is described verbally.  
  • Interpreting without evaluating.  
  • Answering questions such as…  
    o Why do we need order of operations?  
    o What might happen if we didn’t have order of operations? | Suggestion: Start with Match the Expression, Same as #13 pg. 45. (These matching cards were created for you to use for students.)  
  • Lesson 1.10: Numerical Expressions  
    • Example 2 & 3 pg. 44  
    • Share and Show #1 – 12 pgs. 44 – 45  
    • #16 – 17 pg. 46 | Procedural Skills and Fluency:  
  • Write a numerical expression with at least two operations so that when evaluated it equals 18.  
  • Personal Math Trainer-Evaluate  
  • Write an expression for the following, but do not evaluate.  
    o Add 2 and 4 and multiply the sum by 3. Next add 5 to that product and then double the result.  
    o Tony is 8 years old. His sister Anna is 4 years less than twice his age. Write a numerical expression for Anna’s age. |
|       | 5.OA.1, 2                                                                       |                                                                                                                                            |                                                                                                                          | Application:  
  • Illustrative Mathematics Teacher Guide: Video Game Scores  
    • Student Task Page  
  • Go Math! Enrich 1.10                                                                                                                                               |
| 31-33 | I can evaluate numerical expressions by…                                         | • Performing the operations in the grouping symbols (parentheses) first.  
  • Using powers of ten.  
  • Placing parentheses in an expression to equal a given value. | • Lesson 1.11: Evaluate Numerical Expressions                                                                 | Application:  
  • Illustrative Mathematics Teacher Guide: Watch Out for Parentheses 1  
    • Student Task Page  
  • Illustrative Mathematics Teacher Guide: Using Operations and Parentheses                                                                                           |
# Learning Plan – Stage 3

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<tr>
<td></td>
<td></td>
<td></td>
<td>Coach’s Note:</td>
<td>o Student Task Page</td>
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<td>Start with Go Deeper pg. 50 #12 The Theater Task to gather and use evidence of student thinking. (This is typed for you to use for the student task.)</td>
<td>Rollin’ Math Order of Operations</td>
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<td></td>
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<td>• Unlock the Problem pg. 47</td>
<td>Make Make 100 Task</td>
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<td>• Try This A and B pg. 48</td>
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<td>• Mathematical Practice pg. 49 #11</td>
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<td>• Exit Ticket - Math Journal TE pg. 50</td>
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<td></td>
<td>SKIP Lesson 1.12 5.OA.1 does not require nested parenthesis, brackets, and braces.</td>
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<tr>
<td>34</td>
<td>5.OA.1 I will prepare for the unit assessment on place value and multiplication and division by ...</td>
<td>• Answering questions such as... o In what order must operations be evaluated to find the solution to a problem?</td>
<td>Suggestions for Chapter 1 • Go Math! Chapter Test (Assessment Guide, pgs. AG 37 – AG 42) OR • Go Math! Chapter Review/Test (Student Book pgs. 55-60) Only use problems #2 – 7, 11 – 12, 18, 20 – 22</td>
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<td>Suggestions for Chapter 2 • Go Math! Chapter Test (Assessment Guide, pgs. AG 43 – AG 48) OR • Go Math! Chapter Review/Test (Student Book pgs. 101- 106) Only use problems #2 – 3, 5 – 9, 11, 13 – 14, 16, 18</td>
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<tr>
<td>35</td>
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<td>Unit Assessment</td>
<td>Ch. 2 Performance Task – Feature Presentation (Assessment Guide, pgs. AG108 – AG112D)</td>
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