



MISSISSIPPI
EXEMPLAR
Units & Lessons
MATHEMATICS

Grade 2

Grant funded by:



Lesson 8: Mission Addition... Mission Modeled

Focus Standard(s): 2.NBT.7, 2.NBT.9

Additional Standard(s): 2.NBT.1, 2.NBT.2, 2.NBT.3, 2.NBT.4, 2.NBT.5

Standards for Mathematical Practice: SMP.2, SMP.6, SMP.7

Estimated Time: 50 minutes

Resources and Materials:

- Magnificent Math (a stuffed animal superhero used during the lesson as a motivational tool)
- Handout 8.1: Mission Modeled Guided Practice
- Handout 8.2: Mission Modeled Independent Practice
- Chart paper
- Markers

Lesson Target(s):

- Students will use place value modeling to add two 3-digit numbers without regrouping.
- Students will recognize the structure of addition- adding hundreds with hundreds, tens with tens, and ones with ones.

Guiding Question(s):

- In what kinds of situations might we add 3-digit numbers?
- How can place value help me add large numbers?
- How does modeling a problem help me understand the structure of addition?


Vocabulary

Academic Vocabulary:

- Addend
- Addition
- Mental Math
- Sum

Instructional Strategies for Academic Vocabulary:

- Introduce words with student-friendly definition and pictures
- Model how to use the words in discussion
- Read and discuss the meanings of words in a mathematical context

Symbol	Type of Text and Interpretation of Symbol
	Instructional support and/or extension suggestions for students who are EL, have disabilities, or perform well below the grade level and/or for students who perform well above grade level
✓	Assessment (Pre-assessment, Formative, Self, or Summative)
Instructional Plan	
<p>Understanding Lesson Purpose and Student Outcomes: Students will be able to add and subtract three-digit numbers by using an algorithm that is connected to a model or other strategy. Likewise, students will use algorithms to add and subtract using place value and explain the process of composing and decomposing numbers with and without regrouping.</p> <p>Anticipatory Set/Introduction to the Lesson: Mission Expanded Control Display Magnificent Math in students’ view. Remind students that their mission today is to achieve today’s learning goals in order to free Magnificent Math from captivity.</p> <p>Review the previous night’s homework assignment. Randomly select students to share one of the problems that they created. Write these problems on the board and model how to solve them.</p> <p>Activity 1: A Model Addition – Anchor Chart Gather students in a Math Talk setting and elicit the students help in creating an anchor chart detailing the steps in 3-digit addition using place value modeling.</p> <p>Activity 2: Mission Modeled Divide students into groups of four.</p> <p>Distribute Handout 8.1: Mission Modeled Guided Practice.</p> <p>Discuss each step with the students, modeling and then checking by expanded notation. Place a smiley face in the “Check” column if both categories are worked correctly and the answers are the same. Work the first problem as the students listen.</p> <p>Distribute Handout 8.2: Mission Modeled Independent Practice and display it in a large format. Students will work in pairs to complete the handout.</p>	

Note: First, student completes the modeling with place value column. Second, student completes the expanded notation column. Students compare their answers. If they both worked the problems correctly and achieved the same answer they get to add a smiley to the “Check” column. For the next problem, students trade the column they were working on.

For students who are EL, have disabilities, or perform well below grade-level:

- Allow students to use manipulatives to show the 3-digit numbers and combine the models together for the answer.

Activity 3: Superhero Math Talk

- ✓ Have a class discussion about the students’ essential understandings from today’s lesson and how students can build upon this learning.

Prompting Questions:

- What did you discover today?
- Did you and/or your partner have trouble arriving at the same answer?
- What can you relate today’s learning gains to?
- What prerequisite skill(s) did you build upon to help you in today’s lesson?
- How can you build upon what you learned today?
- What did you learn today that surprised you?

Reflection and Closing:

- ✓ Students explain the 5 most important new learning gains they made during today’s lesson. When students finish explaining the 5 learning gains, all at once they will raise their hands in the air and lead them into shouting, “High five for learning!”

Note: If today’s learning goals were successfully met, release the Magnificent Math. The MVP of today’s learning goals is given Magnificent Math to protect. Magnificent Math may sit on his/her desk, He/She may take the superhero to recess, lunch, specials, etc. He/She may also take the superhero home for the night. Be sure to discuss the rules of receiving Magnificent Math. The stuffed animal may not become a distraction to others, and it must be returned the following day.

Homework



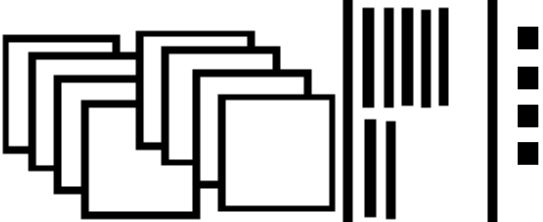
Instruct students to create and solve two problems like today's lesson using the same steps taught in class. Encourage students to use **Handout 8.1: Mission Modeled Guided Practice** as a guide.

Handout 8.1: Mission Modeled Guided Practice

Name: _____

Date: _____

Your Mission: Solve 3-digit addition using place value modeling.

Place Value Modeling	Expanded Notation	Check
$123 + 874 = \underline{\quad}$ 	$123 + 874 = \underline{\quad}$ $100 + 800 = 900$	
	$20 + 70 = 90$	
	$3 + 4 = 7$	
	997	
Place Value Modeling	Expanded Notation	Check
$614 + 271 = \underline{\quad}$	$614 + 271 = \underline{\quad}$	

Handout 8.2: Mission Modeled Independent Practice

Name: _____

Date: _____

Your Mission: Solve 3-digit addition using place value modeling.

Place Value Modeling	Expanded Notation	Check
$\underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$	$\underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$	
Place Value Modeling	Expanded Notation	Check
$\underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$	$\underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$	

For training or questions regarding this unit,
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