



MISSISSIPPI
EXEMPLAR
Units & Lessons
MATHEMATICS

Grade 2

Grant funded by:



Lesson 10: Mission Addition... Vertically Aligned

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)
- Chart paper
- Markers
- Dry erase boards
- Dry erase markers

Lesson Target(s):

- Students will use the standard algorithm 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 kind 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: 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>Ask the students if they can add 349 and 320 without using one of the strategies taught in class. If a student discovers or introduces the standard algorithm allow that student to show the class in a large format. Explain to students that this is an efficient way to add large numbers.</p> <p>Activity 1: Vertically Aligned- 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 the standard algorithm (SMP.4, SMP.7).</p> <p>Activity 2: Vertical Mission Display $345 + 243$ vertically.</p> <p>Conduct a Think Aloud to explain to students the process of adding these two numbers using the standard algorithm. "I will start with the ones place and add ones with ones." "I will then add tens with tens." "Last I will add hundreds with hundreds." Have students work the following problem with you, using think aloud language. $407 + 271 = \underline{\hspace{2cm}}$. Use a random name generator to call on different students to think aloud each step. Provide students with a 3-digit addition problem and have them work it out on</p>	

their dry erase boards. When they are finished, have them share their answer. If someone continuously gets the wrong answer, pair him/her with a peer tutor.

Continue this pattern for several addition problems.

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

- Provide students with grid paper or a table to keep the ones, tens, and hundreds aligned.

Extensions for students with high interest or working above grade level:

- Have students add 4-digit numbers together using the standard algorithm.
- Provide students with a 3-digit addition problem requiring regrouping.

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?
- How did we use the standard algorithm to add 3-digit numbers?
- Why do you think this mission is more efficient than the others?
- What did you learn today that surprised you? (SMP.3)

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 write a paragraph describing their favorite method of adding 3-digit numbers.

For training or questions regarding this unit,
please contact:

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