



MISSISSIPPI  
**EXEMPLAR**  
Units & Lessons  
MATHEMATICS

**Grade 2**

Grant funded by:



## Lesson 11: Superheroes Get Prepared

**Focus Standard(s):** 2.NBT.1, 2.NBT.3

**Additional Standard(s):** 2.NBT.2, 2.NBT.4, 2.NBT.5, 2.NBT.7, 2.NBT.9

**Standards for Mathematical Practice:** SMP.1, SMP.5, SMP.6

**Estimated Time:** 50 minutes

**Resources and Materials:**

- Magnificent Math (a stuffed animal superhero used during the lesson as a motivational tool)
- Dry erase boards
- Dry erase markers
- 1 playing die
- *Sir Cumference and the All the King's Tens* by Cindy Neuschwander
- *Earth Day Hooray! (MathStart)* by Stuart Murphy
- *Math Fables: Lessons That Count* by Greg Tang
- *Big Numbers --and-- Little Numbers* by Edward Packard
- *Zero the Hero* by Joan Holub
- *How Much How Many How Far How Heavy How Long How Tall Is 1000?* by Helen Nolan
- *Math Talk: Mathematical Ideas in Poems for Two Voices* by Theoni Pappas

**Lesson Target(s):**

- Students will use their knowledge of place value and place value strategies to add 3-digit numbers without regrouping.

**Guiding Question(s):**

- When do I add 3-digit numbers together?
- How do I choose the best strategy for adding 3-digit numbers?

## Vocabulary

### Academic Vocabulary:

- Addend
- Addition
- Difference
- Mental Math
- Subtraction
- Subtrahend
- 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

### Understanding Lesson Purpose and Student Outcomes:

Students will be able to add 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.

### 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. 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.

### Activity 1: Superhero Centers

- ✓ Explain to students that they will rotate through centers to practice place value skills already learned in this unit. Tell the students to follow these center instructions:

- They will have approximately 25 minutes at each of the centers.
- Give students jobs: leader, questioner, supply manager, and organizer. Jobs are assigned based on reading group, which students switch between often based on their learning. The leader is usually a student in the highest reading group. This student is responsible for reading the directions and explaining the directions to the student. They are also the student you can go to for help if needed. The questioner is the only student from the group that is allowed to ask the teacher a group question. Only if the group cannot figure the answer out on their own may the questioner come ask the teacher. The supply manager is in charge of all the supplies and distributing and handling the supplies. The organizer is in charge of group clean up, telling the group when to clean up and how the supplies, trash, etc. are to be placed. All students are to participate in cleanup that is directed by the organizer.
- Group students and rotate centers in a way that is conducive to the most learning gains. Use heterogenous grouping with a high, low, and 2 medium ability students in each group.

Centers will include:

- Let's Rock n' Roll
- Tic-Tac-Toe

### **Let's Rock n' Roll!**

Distribute **Handout 11.1: Rock n' Roll Record**. Tell each student to roll a number cube six times to create two 3-digit numbers. Students will record the numbers on their handout. Instruct them to choose any method to add the 2 numbers showing their work on the handout. Tell them to compare each member's sum and determine which sum has the greatest value and which has the least value. Tell students to repeat if time allows.

### **Tic-Tac-Toe**

Allow students to play a game of Tic-Tac-Toe and to choose a partner. Students choose whether they are "Xs" or "Os."

Inform students that before they can mark a spot on the game board that they will have to correctly answer a 3-digit addition problem created by their opponent. The opponents must check their work to make sure that the problem is correct.

If the problem is correct, then the student gets to place his/her "X" or "O" on the selected spot. If the problem is incorrect, then his/her partner can share their answer. Students take turns until someone wins.

### **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

No homework given. Encourage students to study for the summative assessment.

**Handout 11.1: Rock N' Roll Record**

<p><b>Roll 1</b></p>	<p><b>Roll 2</b></p>	<p><b>Roll 3</b></p>
<p><b>Roll 4</b></p>	<p><b>Roll 5</b></p>	<p><b>Roll 6</b></p>

**Workspace:**

For training or questions regarding this unit,  
please contact one of the following:

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