MISSISSIPPI DEPARTMENT OF EDUCATION
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MISSISSIPPI
EXEMPLAR
Units & Lessons
MATHEMATICS

Grade 2

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W.K. KELLOGG FOUNDATION

Lesson 9: Mission Addition… Mission A-Lined

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

Estimated Time: 50 minutes

Resources and Materials:

- Magnificent Math (a stuffed animal superhero used during the lesson as a motivational tool)
- Handout 9.1: Mission A-Lined
- Handout 9.2 Mission A-Lined
- Handout 9.3 Mission A-Lined Homework
- Chart paper
- Personal white boards
- Markers
- Learnzillion - Add Within a 1000 Using a Number Line: https://learnzillion.com/lesson_plans/3982-8-decomposing-to-add-on-a-number-line-fp

Lesson Target(s):

- Students will use a number line to add two 3-digit numbers without regrouping.
- 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:	**Instructional Strategies for Academic Vocabulary:**
• Addend	☐ Introduce words with student-friendly definition and pictures

• Addition • Mental Math • Sum	☐ 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 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.

Anticipatory Set/Introduction to the Lesson: Adding with a Number Line
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.

- Show the Learnzillion video Add Within 1000 Using a Number Line.

Pause the video and discuss the answers to the narrator's questions and allow students to make comments and ask questions. After the video finishes discuss which student decomposed the numbers in a way that made adding easier. Create an anchor chart with the students to show how to add 3-digit numbers on a number line. Show both students' work on the anchor chart (SMP.4, SMP.7).

✓ Check for understanding using the following questions.
Prompting Questions:
- What was one thing that stood out to you in the video?
- How can you use what you learned today to enhance your knowledge?
- What was one thing that surprised you in the video?

Activity 1: Mission Super A-Lined

Display a large number line on the classroom floor to add 271 + 328= ____. Divide the class into two groups: demonstrators and audience. Arrange demonstrators into three groups- tall, medium, and short (based on height and how many you will need for the problem- this example will need 3 talls, 2 mediums, and 8 shorts). The taller students are the hundreds, the medium students are the tens, and the shorter students are the ones. Ask students which number should be placed at the beginning of the number line. Students determine the number that the number line should begin with. Then each student will place themselves on the number line to add the 328, which means 3 students will need to be 100s, 2 students are tens, and 8 students are ones. Instruct students to write the number they represent on their white boards displaying them facing the rest of the class. The audience will work the problem on their individual white boards as the demonstrators align themselves on the number line.

Switch groups and repeat with 371 + 623 =.

Activity 2: Mission A-Lined

Divide students into groups of four. Distribute **Handout 9.1: Mission A-Lined Guided Practice** and discuss each step with the students. Work the first problem as the students listen and instruct students to work the next problem and discuss with the teacher which steps to follow.

Distribute **Handout 9.2: Mission A-Lined Independent Practice** and instruct students to work independently on addition problems. When all students have finished working, groups will be formed to discuss the process and to correct any problems that students worked incorrectly.

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

- Allow student to use manipulatives to solve problems.

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

- Encourage students to add multiple (3 or 4) 3-digit numbers together using a number line.

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!"

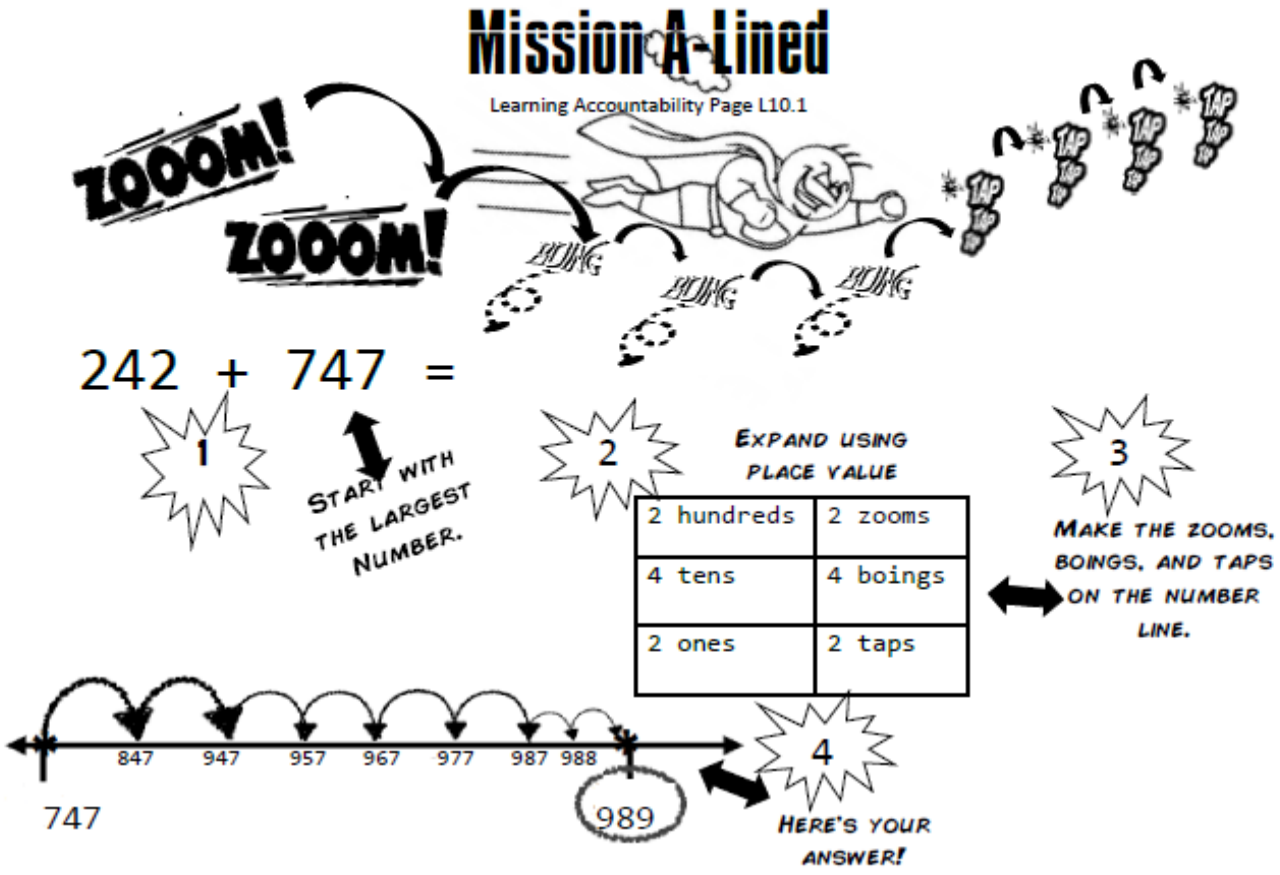
Note: If today's learning goals were successfully met, release the Magnificent Math. The MVP of today's learning goals is given Magnificent Math to protect. Magnificent Math may sit on his/her desk, He/She may take the superhero to recess, lunch, specials, etc. He/She may also take the superhero home 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 complete **Handout 9.3: Mission A-Lined Homework.**

Handout 9.1 Mission A-Lined Guided Practice

Name: _____ **Date:** _____



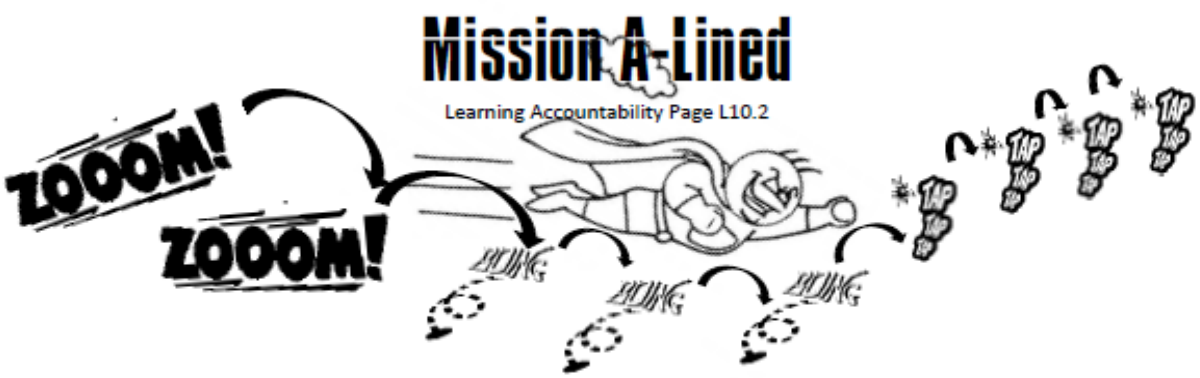
381 + 512 = _____

761 + 203 = _____

307 + 430 = _____

Handout 9.2 Mission A-Lined Independent Practice

Name: _____ **Date:** _____



1. 481 + 517 = _____

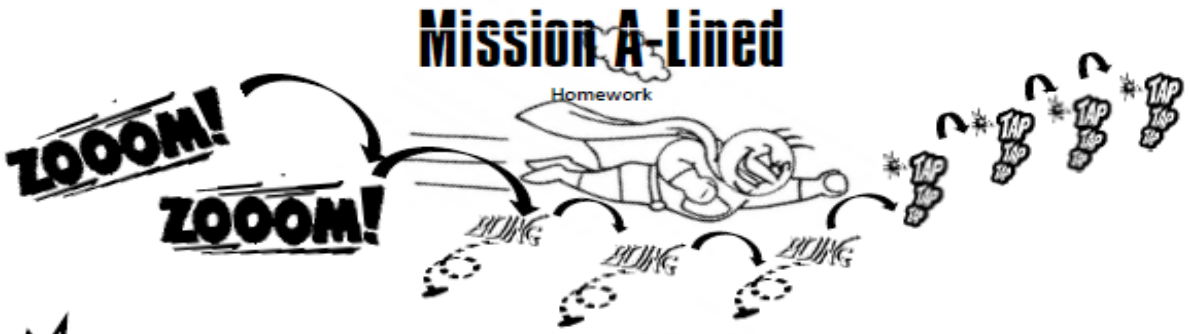
2. 161 + 306 = _____

3. 392 + 406 = _____

4. 642 + 285 = _____

Handout 9.3 Mission A-Lined Homework

Name: _____ **Date:** _____



1. 642 + 285 = _____

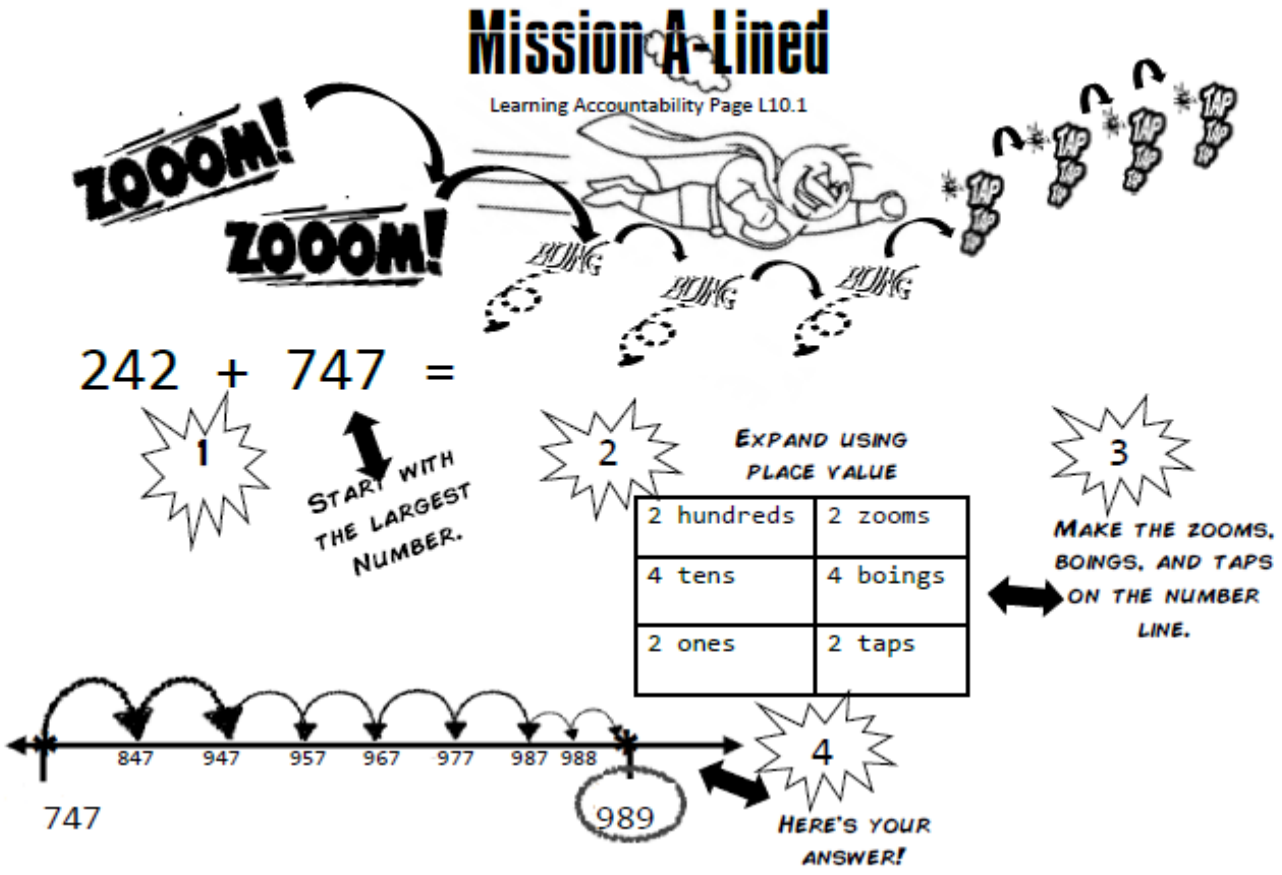
2. 356 + 534 = _____

3. 585 + 414 = _____

4. 856 + 131 = _____

Handout 9.1 Mission A-Lined Guided Practice KEY

Name: _____ **Date:** _____



381 + 512 = **893**

481 581 681 781 881 891 892 893

761 + 203 = **964**

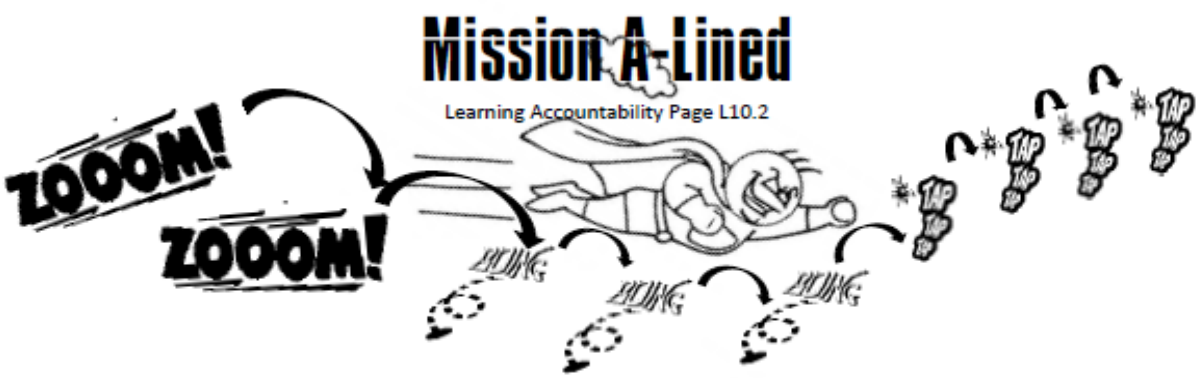
861 961 962 963 964

307 + 430 = **737**

407 507 607 707 717 727 737

Handout 9.2 Mission A-Lined Independent Practice KEY

Name: _____ **Date:** _____



1. 481 + 517 = **998**

581 681 781 881 981 991 992 993 994 995 996 997 998

2. 161 + 306 = **467**

261 361 461 462 463 464 465 466 467

3. 392 + 406 = **798**

492 592 692 792 793 794 795 796 797 798

4. 642 + 285 = **927**

742 842 852 862 872 882 892 902 912 922 923 924 925 926 927

Handout 9.3 Mission A-Lined Homework KEY

Name: _____ **Date:** _____

1. 642 + 285 = **927**

742 842 852 862 872 882 892 902 912 922 923 924 925 926 927

2. 356 + 534 = **890**

456 556 656 756 856 866 876 886 887 888 889 890

3. 585 + 414 = **999**

685 785 885 985 995 996 997 998 999

4. 856 + 131 = **987**

956 966 976 986 987

For training or questions regarding this unit, please contact:

exemplarunit@mdek12.org