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Level 2

Focused Mathematics Intervention

Teacher's Guide

Teacher Created Materials

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Kit Components

HOW TO USE This product

Teacher's Guide

30 easy-to-use, standards-based lesson plans



Student Guided Practice Book

Full-color student activities



Assessment Guide

Includes a pretest, posttest, performance tasks with assessments, and the answer key for the *Student Guided Practice Book*



3 Math Fluency Game Sets

Include a game board, directions, an answer key, and game pieces



3 Digital Math Fluency Games

Focus on mathematical skills and strategies, and are on the Digital Resources USB Device



Digital Resources

- PDFs of all student materials, game sets, activity sheets, assessments, etc.
- PDFs of teacher resources
- Digital Math Fluency Games
- Electronic versions of the Pretest, Posttest, Performance Tasks, and reporting tools

Refocus Mini Lesson



Provide as PowerPoint[®] and PDF files



HOW TO USE THIS PRODUCT Cetting Started

1. Prior to instruction, administer the Pretest. This assessment covers all the mathematics skills and objectives for this level of the program. It can be used to determine which concepts have already been mastered by each individual student, as well as which lesson's concepts still need to be taught.

Note: Use the Pretest Item Analysis (pretestanalysis.doc; pretestanalysis.pdf, pretestanalysis.xls) to help monitor which skills are the most difficult for students and need to be focused on.







Pretest Item Analysis

2. Determine the most appropriate pacing plan for students. Use or modify the pacing plans located on pages 41–44 to best meet the needs of your students.





Teaching a Lesson

Teacher's Guide

Each 8-page lesson is organized in a consistent format for ease of use. Teachers may choose to complete some or all of the lesson activities to best meet the needs of their students. Lesson materials can be utilized flexibly in a variety of settings. For example, modeling with a small group, using printed materials with a document camera, or using PDF materials on a digital platform, such as an interactive whiteboard. Each lesson includes:

- an overview page with key information for planning
- key mathematics content standards covered
- key mathematical practices and processes addressed
- an overview providing teacher background or student misconceptions
- a Warm-Up activity to build students' recall of important mathematical concepts
- a whole-class Language and Vocabulary activity
- time markers to indicate the approximate time for instruction
- a whole-class section focusing on the key concept/skill being taught
- use of the gradual release of responsibility model in the Whole-Group lesson section
- differentiation strategies to support and extend learning with the Refocus lesson and Extend Learning activity
- math fluency games that motivate students to develop and reinforce mastery of basic skills
- a Math in the Real World concept task activity









Teaching a Lesson (cont.)

Student Guided Practice Book

HOW TO USE

<u>This product</u>

Each lesson in the *Teacher's Guide* has seven corresponding student pages in the *Student Guided Practice Book:*

- a We Do activity to support the gradual release of responsibility model
- a You Do activity to facilitate independent practice
- a Quick Check to easily monitor students' progress
- a Refocus activity for students who need more instruction
- an Independent Practice page to reinforce mathematical content taught in the lesson
- a Math in the Real World concept task for students to apply the math concept in a real-life scenario
- a Reflection page for students to share their mathematical understanding



Adding Multiple Two-Digit Numbers

Learning Objectives

Number and Operations in Base Ten

• Add up to four two-digit numbers using strategies based on place value and properties of operations.

Mathematical Practices and Processes

- Make sense of problems and persevere in solving them.
- Create viable arguments and critique the reasoning of others.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Progress Monitoring

The *Student Guided Practice Book* pages below can be used to formally and informally assess student understanding of the concepts.



Materials

• Student Guided Practice Book (pages 62–68)

LESSON

- Math Fluency Game Sets
- Digital Math Fluency Games
- chart paper
- markers
- base ten blocks

Teacher Background

Students have had multiple experiences with developing addition strategies. Again, the standard algorithm is neither an expectation nor a focus. Rather, students are learning that they can sometimes make strategic choices of the order or grouping in which they add numbers. Also, it is important that students solve addition problems through strategies based on place value and combinations of 10. The strategies used with two addends can also be used with multiple addends.

Warm-Up 10 min.

LESSON

- **1.** Ask, "Can anyone think of two numbers that have a sum of 10?" Collect and record student responses on chart paper. (5 + 5; 4 + 6; 3 + 7; 2 + 8; 1 + 9)
- 2. Say, "These were all two addends with a sum of 10. Can anyone think of three addends that have a sum of 10? You may use a number more than once." Collect and record responses, such as 1 + 1 + 8 and 2 + 3 + 5.
- **3.** Say, "Can anyone think of four addends that have a sum of 10? You may use a number more than once." Collect and record responses, such as 2 + 3 + 2 + 3. If students repeatedly use 0, acknowledge the accuracy, but explain this is not a very interesting equation. Encourage students to use addends other than 0.
- **4.** Say, "As we work today, keep in mind all the different ways to make 10. You can look at our chart to help."

Language and Vocabulary (10 min.

1. Write the following vocabulary terms on the board:

addition/add sum value

2. Select one example from the Warm-Up with two addends, one example with three addends, and one example with four addends. Write these on the board. Say, "Can anyone use any of these words to label parts of these equations or to describe them?" Allow students to label addition signs and sums on the board. Verbal explanations may include ideas such as the following: the value of all of the equations is 10; the sum is 10; these are addition equations; etc.

Whole-Group Lesson 40 min.

Focus

tens

ones

- 1. The following lesson will address these focus questions: *How can using what I know about place value and adding two numbers help me add more than two numbers? How can finding groups of 10 help me add more than two numbers?*
- 2. You may wish to write the focus questions on the board and read them aloud to students. Explain that you will revisit the focus questions at the end of the lesson.

(I Do)

Say, "We have had a lot of practice adding two numbers. Let's try adding three numbers." Write $39 + 13 + 21 = _$ on the board. Say, "In 39, how many tens are there?" (*three*) What is the value of that 3?" (30) "How many ones are in 39?" (*nine*) Record 30 under the 39, and the 9 under the 30, as shown below.

_

39 + 13 + 21 309

2. Proceed with similar questions to identify and record the value of the tens and ones in each number. The result will look like this:

	39	+	13	+	21	=
tens	30	+	10	+	20	=
ones	9	+	3	+	1	_

- **3.** Say, "Let's focus on our tens: 30 + 10 + 20. What is the sum?" (60) "How do you know?" Accept responses of how students counted by tens. Record 60 next to the tens addition equation.
- 4. Say, "Now, let's focus on the ones. Does anyone see a way to make a group of 10 out of the ones?" (9 + 1) Put a check mark underneath the 9 and the 1 to show that they have been used. "We know 9 + 1 is 10. We still have to add on the 3. What is our new sum?" (13) "How do you know?" (10 + 3 = 13) Record 13 next to the ones addition equation.
- 5. Say, "We have a sum of our tens: 60. We have a sum of our ones: 13. What do we have to do with these numbers to get a solution to our original problem?" (*Add them.*) "How can we combine 60 and 13, and what is the sum when we do?" Accept student responses and a solution of 73.

Whole-Group Lesson (cont.)

(We Do

- 1. Refer students to the All Aboard! activity sheet (*Student Guided Practice Book*, page 62). Say, "Let's read the problem on your activity sheet: *Marisol rode the train to her grandma's house*. There were 23 people in the first train car, 37 people in the second car, and 32 people in the last car. How many people were riding the train?"
- Say, "Let's make our addition equation for the value of the digits in the tens place."
 (20 + 30 + 30 = ____) Write this on the board as students record on their activity sheets.
- 3. Ask, "What is our addition equation for the value of the digits in the ones place?" (3 + 7 + 2 =) Write this on the board. "Does anyone see a way to make 10?" (3 + 7) Put a check mark underneath 3 and 7. "What is the sum after we add 2 to the 10 we made? (12) "Record your work with ones and the sum on your activity sheets."
- **4.** Ask, "How can we combine 80 + 12 to get a solution? What is the sum?" Collect strategies and the solution. (92)
- 5. Say, "Look at your activity sheet and read the next problem to yourself as I read it aloud: There were 39 tickets sold for the train ride on Monday. On Tuesday, 14 train tickets were sold. On Wednesday, 22 people bought train tickets. How many total tickets were bought for the train? Write a tens equation on your activity sheets." Allow students work time, and accept the response 30 + 10 + 20 = 60. Record this on the board.

Language Support

Students needing language support may benefit from written scaffolds, with *tens* and *ones* printed for them, so they can simply write the addends in the corresponding place.

Whole-Group Lesson (cont.)

We Do

- 6. Say, "Write a ones equation on your activity sheets." Allow students work time, and accept the response of 9 + 4 + 2. "Can we make a ten?" (*No.*) Ask, "If we start with the 9, how many more would we need to make a ten?" (1) "We can take that one from the 4, making it a 3." (9 + 1 + 3 + 2) Record this on the board.
- 7. Say, "Now, we have a ten: 9 + 1." Put a check mark underneath the 9 and 1. "What is our sum when we add 10, 3, and 2?" (15) Students may also offer adding 9 + 4 + 2 without making a group of 10. Accept this response, and explain that making a group of 10 is just a strategy to help if the problem is not quite as easy as 9 + 4 + 2 was for them.
- **8.** Ask, "What is the last step?" (*adding* 60 + 15) Record 60 + 15 on the board. "What is our sum, and how do you know?" Accept student responses and a solution of 75.

Whole-Group Lesson (cont.)

You Do

LESSON

- 1. Refer students to the School Days activity sheet (*Student Guided Practice Book*, page 63). Encourage students to use known strategies to help them solve the problems.
- **2.** Have students share their reasoning and explanations. If students have difficulty explaining their reasoning, remind them to use the vocabulary terms.

Closing the Whole-Group Lesson

Revisit the focus questions for the lesson: *How can using what I know about place value and adding two numbers help me add more than two numbers?* How can finding groups of 10 *help me add more than two numbers?* Have students share how the lesson added to their understanding of using tens and ones to find solutions.

Progress Monitoring (5) min.

- **1.** Have students complete the Quick Check activity sheet (*Student Guided Practice Book*, page 64) to gauge student progress toward mastery of the Learning Objectives.
- 2. Based on the results of the Quick Check activity sheet and your observations during the lesson, identify students who may benefit from additional instruction in the Learning Objectives. These students will be placed into a small group for reteaching. See instructions on the following page.

Differentiated Instruction 60 min.

Gather students for reteaching. The remaining students will complete the Independent Practice activity sheet (*Student Guided Practice Book*, page 66) to reinforce their learning and then play the Math Fluency Games.

Refocus

Revisit the focus questions for the lesson: *How can using what I know about place value and adding two numbers help me add more than two numbers?* How can finding groups of 10 *help me add more than two numbers?* Students who struggled to understand adding multiple two-digit numbers will benefit from working with base ten blocks. Tell students to build 23, 12 and 51 with base ten blocks. Students should build 23 with two tens and three ones, 12 with one ten and two ones, and 51 with five tens and one one. Say, "Let's add the tens together. We have 20 + 10 + 50." Record this on the board. Have students count by tens to prove the solution. (80) "Next, let's add the ones. We have 3 + 2 + 1." Record this on the board. Have students count by ones to prove that the sum is 6. "How can we combine 80 + 6 to find a solution?" Write 80 + 6 on the board. Accept responses, such as combining blocks or counting, for a solution of 86. "We can also write this equation as 23 + 12 + 51 = 86." Give students another problem to add using 45, 14, and 23. This problem will involve trading 10 ones for one ten. Guide students through each step of the problem to ensure success with the trading. Finally, support students as they complete Question 1 on the Refocus activity sheet (*Student Guided Practice Book*, page 65), and then have them solve Question 2 independently.

Math Fluency Games



Math Fluency Game Sets



Digital Math Fluency Games

Extend Learning

Students will use place value relationships to add 123 + 242 + 333. Make base ten blocks available for those who would like to use them. Then, have students complete the Lesson 9 Extend Learning Task (filename: extendtask9.pdf).

Math in the Real World 30 min.

- 1. Refer students to the Math in the Real World: It's a Dog's World task (*Student Guided Practice Book*, page 67). Have a student read the task aloud. Tell students to explain or summarize the task to their partner. Have a few students share their summaries.
- 2. Ask students to think about what information they will need to solve the task and what the task is asking them to do. Then, have them share with a partner. Ask a few students to share aloud. Have students work in groups of two or three to complete the task.
- 3. As students are working, circulate and ask focusing, assessing, and advancing questions:
 - What information do you know? What are you trying to find out?
 - Do you need a drawing to prove Kiana right or wrong?
 - Can numbers and place value help prove Kiana right or wrong?
 - Do you have to add or can you compare the numbers to answer the question?
 - Do you agree that Kiana groomed more than 90 dogs?
 - How can you use place value to explain your reasoning?

Sentence Frames for Explaining Reasoning

- The problem asked me to _____.
- I used _____ to solve the problem.
- Kiana groomed more or less (circle one) than 90 dogs last month.
- **4.** Observe how students are solving the task, and choose a few groups who solved the task in different ways to share their solutions and reasoning. Try to have the solutions move from concrete representations to more abstract representations. For example, have students share solutions with manipulatives, then the visual representation (drawing), then the symbolic representation (equation). Make sure students explain their reasoning as they share solutions.
- 5. As groups are sharing their solution paths, reasoning, and strategies, ask questions:
 - Who can explain _____'s idea another way?
 - Is there another way to solve the problem?
 - How is this solution similar to _____'s solution?

Lesson Reflection (5) min.

Have students summarize their strategies for using place value relationships when adding multiple two-digit numbers, and provide feedback on any questions they still have about the content on the Reflection activity sheet (*Student Guided Practice Book*, page 68).

Nombre:

LECCIÓN

Fecha: _____

iTodos a bordo!

Instrucciones: Resuelve los siguientes problemas de planteo.

1 Marisol viajó en tren a la casa de su abuela. Había 23 personas en el primer vagón del tren, 37 personas en el segundo vagón y 32 personas en el último vagón. ¿Cuántas personas viajaban en el tren?

2 Se vendieron 39 boletos para el viaje en tren del lunes. El martes, se vendieron 14 boletos de tren. El miércoles, 22 personas compraron boletos de tren. ¿Cuántos boletos se compraron en total para el tren? Nombre:

Fecha: _____

Días de escuela

Instrucciones: Encuentra la suma. Usa el valor posicional u otras estrategias para mostrar cómo resolviste el problema.

1 Manny leyó 13 páginas en la clase de ciencias. Leyó 19 páginas en historia y 20 páginas en la clase de lectura. ¿Cuántas páginas leyó Manny en total?

2 La oficina recolecta los lápices que los estudiantes pierden o los que se les caen. El lunes, había 24 lápices en la caja. El martes, se agregaron 36 lápices. El miércoles, se agregaron 18 lápices a la caja. ¿Cuántos lápices hay ahora en la caja?

3 La primera clase de Angeline tiene 28 estudiantes. La segunda clase tiene 19 estudiantes. La tercera clase tiene 23 estudiantes. ¿Cuántos estudiantes hay en las primeras tres clases de Angeline? LECCIÓN

.EC	Nombre:	Fecha: rápido					
	Instrucciones: Elige la suma correcta.						
	1 32 + 24 + 18 =	2 15 + 34 + 6 + 5 =					
	A 84	▲ 60					
	B 74	B 49					
	3 17 + 38 + 3 + 12 = ? A 7	0 B 68					

Instrucciones: Lee y resuelve el problema. Usa el valor posicional u otras estrategias para mostrar cómo encontraste la respuesta.

A Natasha vendía palomitas de maíz para la recaudación de fondos de la escuela. Vendió 12 cajas el lunes. Vendió 23 cajas de palomitas de maíz el martes y 47 el miércoles. ¿Cuántas cajas de palomitas de maíz vendió Natasha?



Nombre:

LECCIÓN

Fecha

Práctica independiente

Instrucciones: Encuentra la suma. Usa el valor posicional u otras estrategias para mostrar cómo encontraste la suma.







Nombre:

Evaluación diagnóstica

1. ¿Cuál es 320?



2. Henry escribió el número que muestra el modelo. ¿Qué escribió?



|--|--|--|--|--|--|--|--|--|--|--|



Tarea de desempeño 1 Figuras a nuestro alrededor

Parte A



_____ Esta figura tiene seis caras.

_____ Esta figura tiene seis ángulos.

5. Dibuja dos cuadriláteros diferentes.

3.

4.