Sample Pages from

TCM | Teacher Created Materials

Created *by* Teachers *for* Teachers and Students

Thanks for checking us out. Please call us at **800-858-7339** with questions or feedback or to order this product. You can also order this product online at **www.tcmpub.com**.

For correlations to state standards, please visit
www.tcmpub.com/administrators/correlations

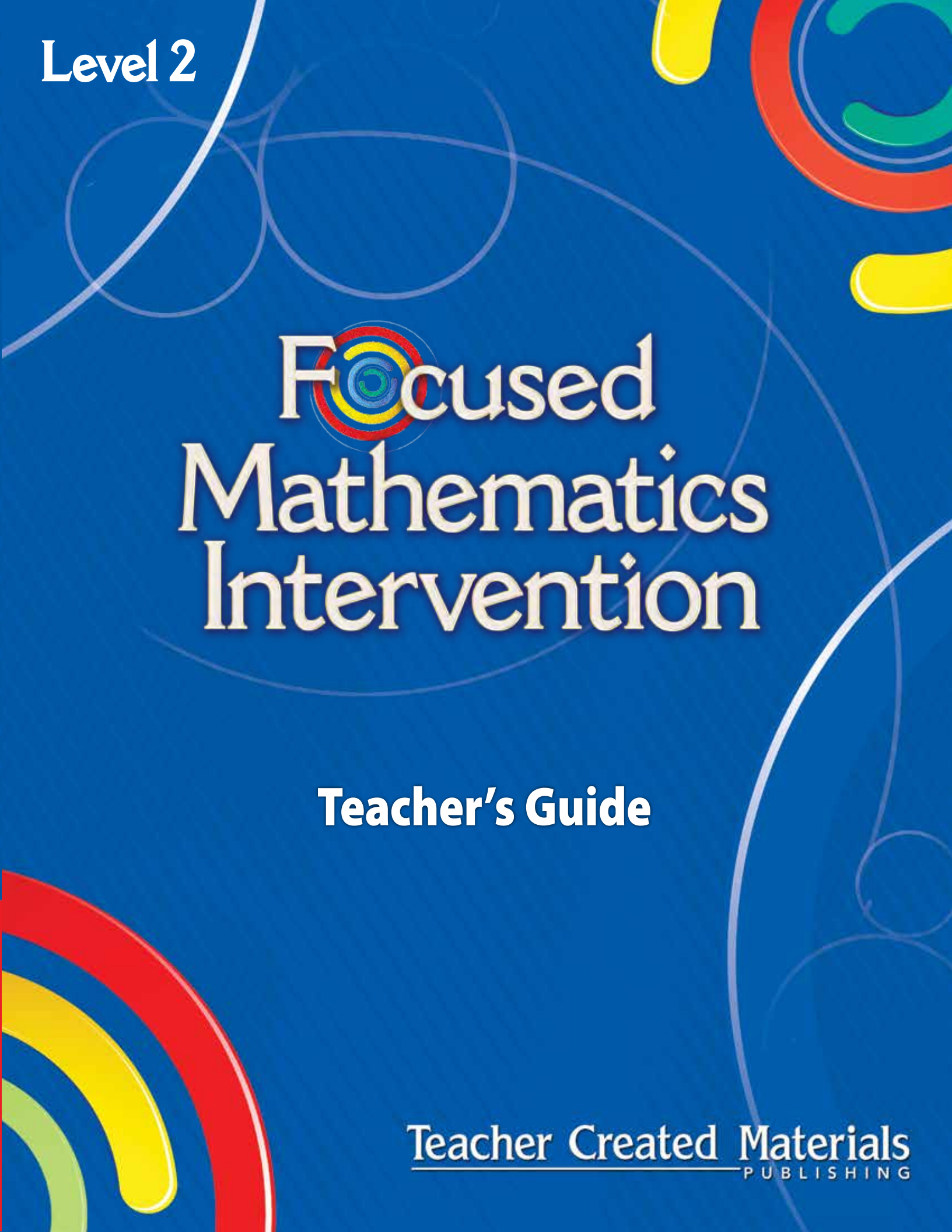## Focused Mathematics Intervention— Level 2

This sample includes the following:

Teacher's Guide Cover (1 page)
Teacher's Guide Table of Contents (1 page)
How to Use This Product (3 pages)
Lesson Plan (17 pages)

To **Create** a World in which **Children** love to Learn!

Level 2

Focused Mathematics Intervention
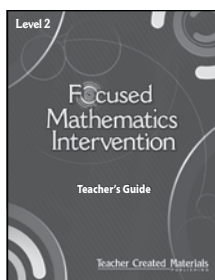
Teacher's Guide

Teacher Created Materials
PUBLISHING

Table of Contents

Kit Components

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

45 + 47 =

3 Digital Math Fluency Games

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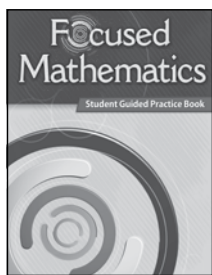
Digital Resources

- 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 PPT

Provide as PowerPoint® and PDF files

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.)
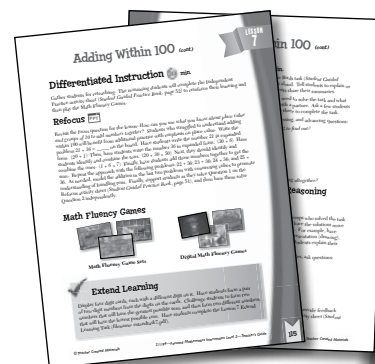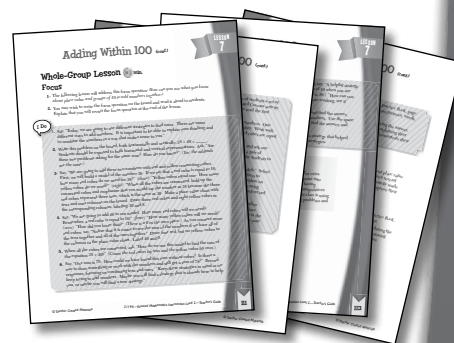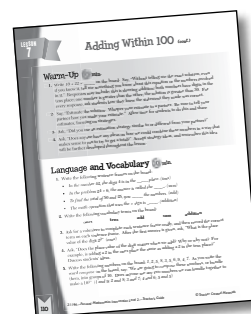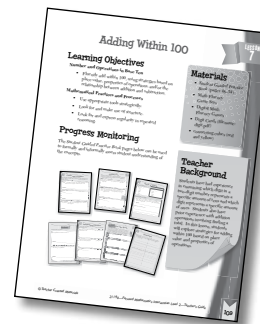
Student Guided Practice Book

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.
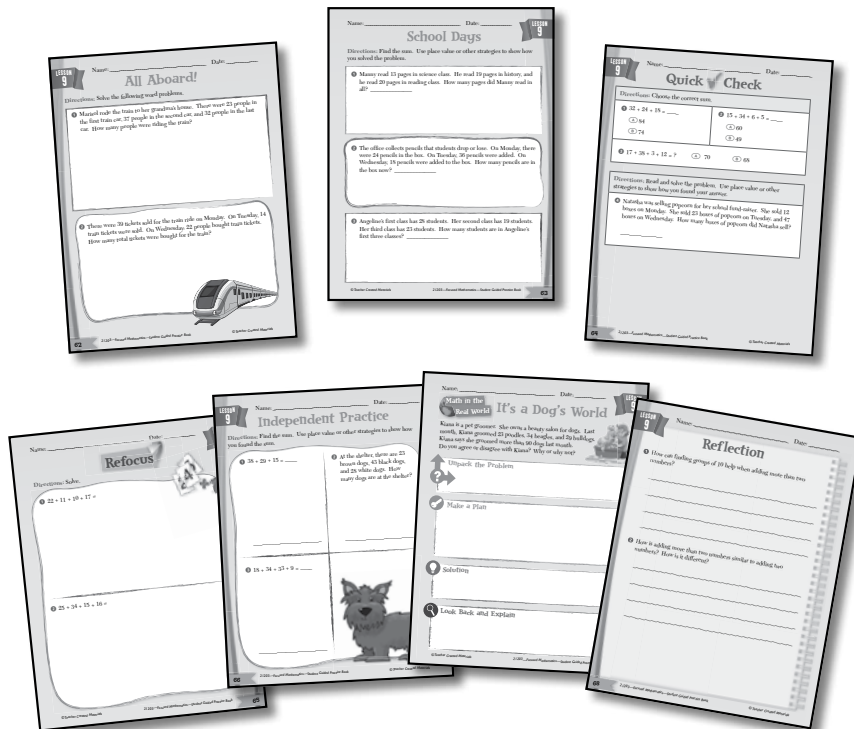
Materials

- *Student Guided Practice Book* (pages 62–68)
- 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.

Adding Multiple Two-Digit Numbers *(cont.)*

Warm-Up ⟳ 10 min.

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.

Adding Multiple Two-Digit Numbers *(cont.)*

Whole-Group Lesson ⟳40 min.

Focus

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

1. 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	=
tens	30					
ones	9					

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.

Adding Multiple Two-Digit Numbers *(cont.)*

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?*"

2. 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 *(cont.)*

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.

Adding Multiple Two-Digit Numbers *(cont.)*

Whole-Group Lesson *(cont.)*

You Do

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.

# Adding Multiple Two-Digit Numbers *(cont.)*

Differentiated Instruction ⏱ 20 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 `PPT`

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
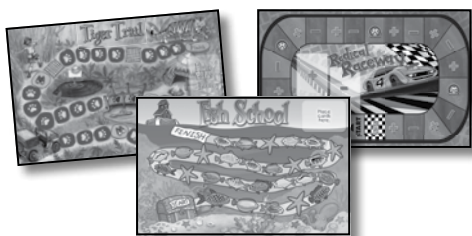
Math Fluency Game Sets

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).

Adding Multiple Two-Digit Numbers *(cont.)*

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).

Name: _____ Date: _____

All Aboard!

Directions: Solve the following word problems.

1 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?

2 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?

School Days

Directions: Find the sum. Use place value or other strategies to show how you solved the problem.

1 Manny read 13 pages in science class. He read 19 pages in history, and he read 20 pages in reading class. How many pages did Manny read in all? _____

2 The office collects pencils that students drop or lose. On Monday, there were 24 pencils in the box. On Tuesday, 36 pencils were added. On Wednesday, 18 pencils were added to the box. How many pencils are in the box now? _____

3 Angeline's first class has 28 students. Her second class has 19 students. Her third class has 23 students. How many students are in Angeline's first three classes? _____

Name: _____   Date: _____

Quick ✔ Check

Directions: Choose the correct sum.

1 32 + 24 + 18 = _____

   Ⓐ 84

   Ⓑ 74

2 15 + 34 + 6 + 5 = _____

   Ⓐ 60

   Ⓑ 49

3 17 + 38 + 3 + 12 = ?   Ⓐ 70   Ⓑ 68

Directions: Read and solve the problem. Use place value or other strategies to show how you found your answer.

4 Natasha was selling popcorn for her school fund-raiser. She sold 12 boxes on Monday. She sold 23 boxes of popcorn on Tuesday, and 47 boxes on Wednesday. How many boxes of popcorn did Natasha sell?

_____

Refocus

Directions: Solve.

1 22 + 11 + 10 + 17 =

2 25 + 34 + 15 + 16 =

Name: _____ Date: _____

Independent Practice

Directions: Find the sum. Use place value or other strategies to show how you found the sum.

1 38 + 29 + 15 = _____

_____

2 At the shelter, there are 23 brown dogs, 43 black dogs, and 28 white dogs. How many dogs are at the shelter?

_____

3 18 + 34 + 33 + 9 = _____

_____

Name:_____ Date:_____

Math in the Real World

It's a Dog's World

Kiana is a pet groomer. She owns a beauty salon for dogs. Last month, Kiana groomed 23 poodles, 34 beagles, and 29 bulldogs. Kiana says she groomed more than 90 dogs last month.
Do you agree or disagree with Kiana? Why or why not?

Unpack the Problem

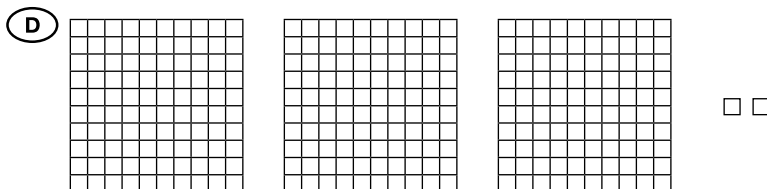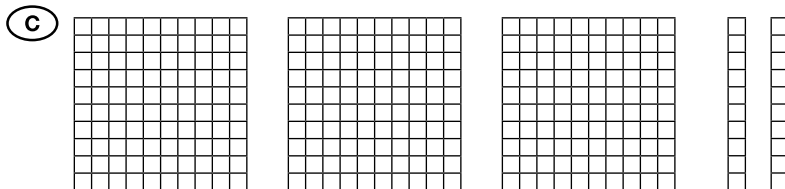**?**

Make a Plan

Solution

Look Back and Explain

Reflection

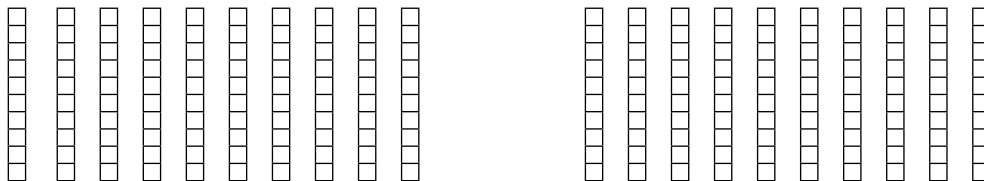1. How can finding groups of 10 help when adding more than two numbers?

_____

_____

_____

_____

2. How is adding more than two numbers similar to adding two numbers? How is it different?

_____

_____

_____

_____

Pretest

1. Which is 320?

(A)

(B)

(C)

(D)
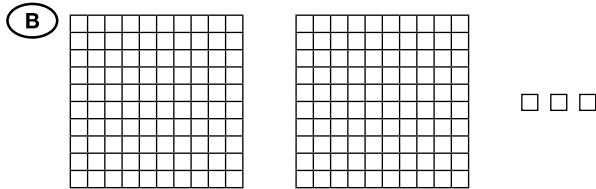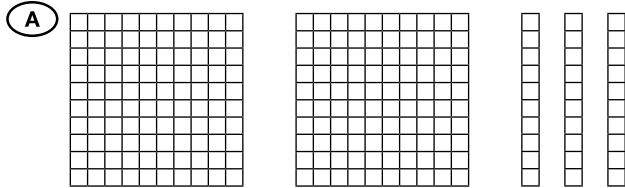
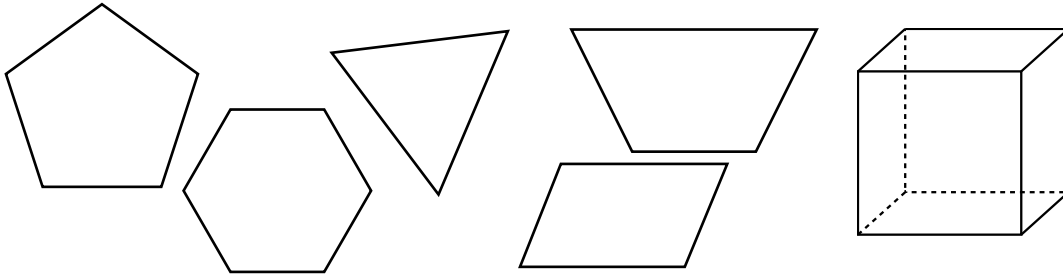**2.** Henry wrote the number shown by the model. What did he write?

(A) 12

(B) 122

(C) 200

(D) 220

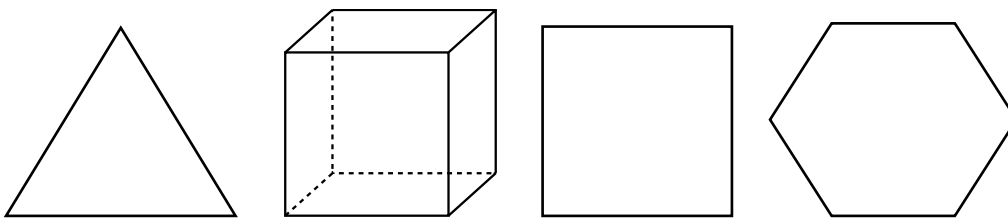# Performance Task 1:
Shapes All Around Us

Part A

Mr. Davis describes shapes to his students. What shape is he describing?

1. _____ This is a five-sided shape.
2. _____ This has three angles and three sides.

Mr. Davis drew the following shapes on the board:

3. _____ This shape has six faces.
4. _____ This shape has six angles.

5. Draw two different quadrilaterals.