Chapter 9 Opener: Add Numbers within 1,000

Classroom Materials: scissors
Instructional Resources: Vocabulary Cards
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

Performance Task Preview

Students will discuss the following questions to start the chapter.

- What is a robot? What are some things that robots can do?
- You use 220 parts to make one robot and 157 parts to make another. How many parts do you use in all?

In the Performance Task at the end of the chapter, students will use the number of parts of various robot kits to add numbers within 1,000.

Vocabulary Review

Students will complete exercises to review and preview vocabulary words.

- Review: edge, flat surface, vertex
- Preview: compatible numbers

Chapter 9 Vocabulary

Students will complete an Echo activity to learn about new vocabulary words.

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Lesson 9.1: Add 10 and 100

Common Core State Standards: 2.NBT.B.7, 2.NBT.B.8
Learning Target: Use mental math to add 10 and add 100.
Success Criteria

- Add 10 or 100 to a number and write the sum.
- Explain what happens to the digit in the tens place when I add 10.
- Explain what happens to the digit in the hundreds place when I add 100.

Vocabulary: none
Classroom Materials: base ten blocks, whiteboards
Instructional Resources: none
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

Warm Up (in the Resources by Chapter)

- Daily Skills Practice: solving two-step word problems within 20
- Vocabulary Practice: equal to (=)
- Prerequisite Skills Practice: count by tens from a given three-digit number

Dig In (in the Teaching Edition)
Students will use mental math to practice counting by tens from any starting number.

Explore and Grow
Students will model 231 by drawing a quick sketch. Then they will make quick sketches to model adding 10 and 100.

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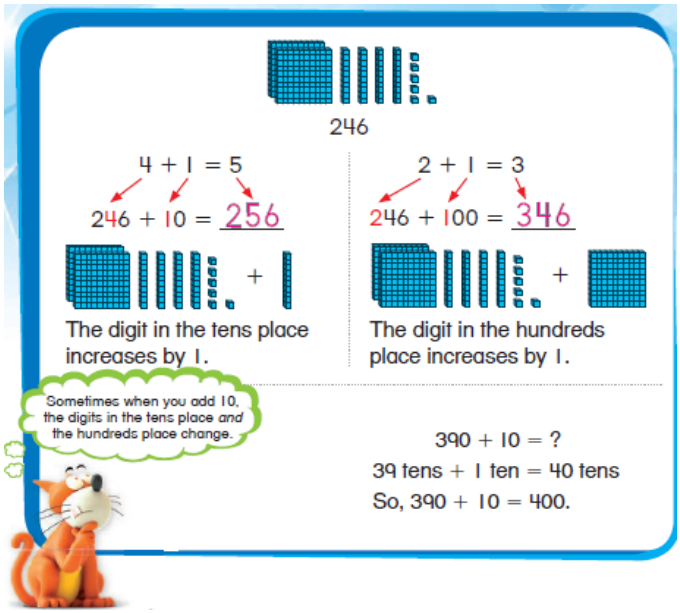
Think and Grow
Students will use base ten blocks to model 246. Then they will use place value to explain what happens to the digits when adding 10 and 100.



Have students work independently or in groups to complete the Show and Grow exercises.

Apply and Grow
Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:

15. 349 + 100 = 449

Think and Grow: Modeling Real Life
Students will write and solve addition equations to model the story. Then they will compare the sums to determine who scored more points.
Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)
Students will add 10 and 100 to 394 on their whiteboards. Then they will repeat with various three-digit numbers.

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If time permits, consider using the following resources.

Surface Level	Deep Level
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer	Resources by Chapter ● Enrichment and Extension Graphic Organizers Dynamic Assessment System ● Lesson Practice

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Lesson 9.2: Use a Number Line to Add Hundreds and Tens

Common Core State Standards: 2.NBT.B.7
Learning Target: Use an open number line to add hundreds and tens.
Success Criteria

- Show jumps of hundreds and tens on an open number line.
- Count on from a starting number in different ways.
- Write the sum.

Vocabulary: none
Classroom Materials: base ten blocks, whiteboards, dice
Instructional Resources: Open Number Line
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

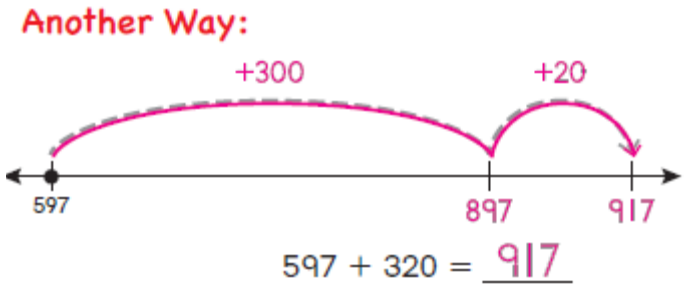
Warm Up (in the Resources by Chapter)

- Daily Skills Practice: solving one-step subtraction word problems
- Vocabulary Practice: open number line
- Prerequisite Skills Practice: adding a multiple of 10 to a two-digit number using a number line

Dig In (in the Teaching Edition)
Students will start at 144 on an open number line and add a number of tens according to the number they roll on a die. Then they will model each addition until they get to 300.

Explore and Grow
Students will use a number line to model skip counting by tens, five times. Then they will write and solve an addition equation.

Think and Grow
Students will use a number line to show two ways of adding 597 + 320.



Have students work independently or in groups to complete the Show and Grow exercises.

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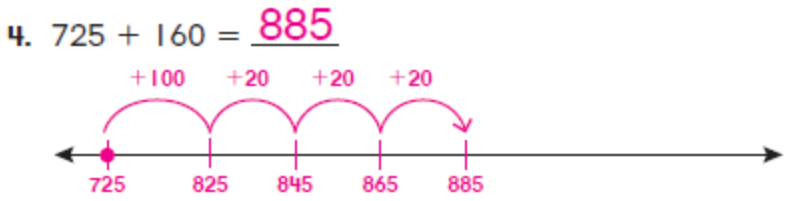
Apply and Grow
Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:



Think and Grow: Modeling Real Life
Students will use an open number line to model the story problem. Then they will solve for the missing addend by skip counting.
Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)
Students will discuss errors in a given problem with a partner.

If time permits, consider using the following resources.

Surface Level	Deep Level
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer	Resources by Chapter ● Enrichment and Extension Graphic Organizers Dynamic Assessment System ● Lesson Practice

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Lesson 9.3: Use a Number Line to Add Three-Digit Numbers

Common Core State Standards: 2.NBT.B.7
Learning Target: Use an open number line to add.
Success Criteria

- Show jumps of hundreds, tens, and ones on an open number line.
- Count on from a starting number in different ways.
- Write the sum.

Vocabulary: none
Classroom Materials: dice, crayons
Instructional Resources: none
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

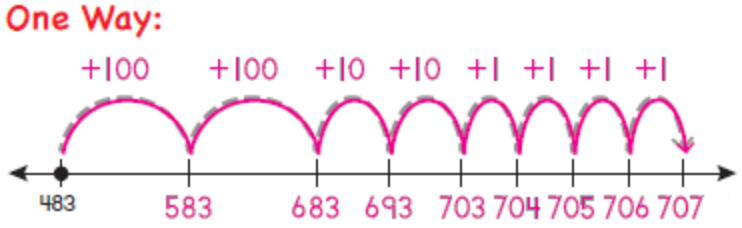
Warm Up (in the Resources by Chapter)

- Daily Skills Practice: identifying groups of tens as hundreds
- Vocabulary Practice: hundred
- Prerequisite Skills Practice: adding two three-digit numbers using a number line

Dig In (in the Teaching Edition)
Students will play a game with a partner by rolling a die to determine how many ten and ones to add to a starting number of 138. They will continue to play until they reach a number greater than a target number.

Explore and Grow
Students will use a number line as a model to solve an addition equation. Then they will use each sum as the missing addend in the next equation.

Think and Grow
Students will use a number line to model two ways of adding 483 + 224.



Have students work independently or in groups to complete the Show and Grow exercises.

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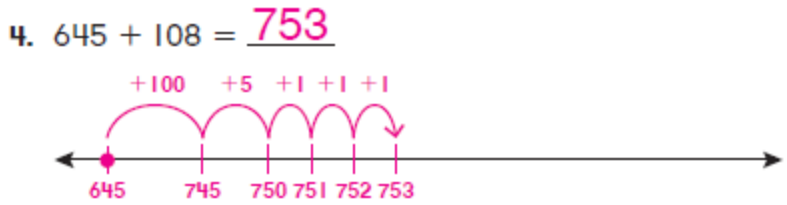
Apply and Grow
Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:



Think and Grow: Modeling Real Life
Students will write an addition equation to model the story problem. Then they will use a number line to model and solve the equation.
Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)
Students will count on from 234 to 657 by hundreds, tens, and ones. Then they will answer true and false questions about models for addition equations.

If time permits, consider using the following resources.

Surface Level	Deep Level
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer	Resources by Chapter ● Enrichment and Extension Graphic Organizers Dynamic Assessment System ● Lesson Practice

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Lesson 9.4: Use Compensation to Add-Three Digit Numbers

Common Core State Standards: 2.NBT.B.7
Learning Target: Use compensation to add.
Success Criteria

- Explain how to use compensation to add.
- Add to or take from an addend to make a hundred.
- Write the sum.

Vocabulary: none
Classroom Materials: base ten blocks, whiteboards
Instructional Resources: none
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

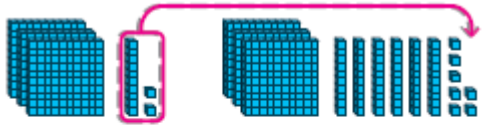
Warm Up (in the Resources by Chapter)

- Daily Skills Practice: subtracting two-digit numbers (horizontal)
- Vocabulary Practice: compensation
- Prerequisite Skills Practice: using compensation to add two two-digit numbers

Dig In (in the Teaching Edition)
Students will work with a partner to model three-digit numbers with base ten blocks. One partner will give some blocks to the other so that their number will be easy to add using mental math.

Explore and Grow
Students will add to a given model of base ten blocks to make 300. Then they will make a quick sketch of their work.

Think and Grow
Students will use base ten blocks to model adding 325 + 196. Then they will use compensation to write and solve an addition equation.



312 + 367 = ?

⊖ 12 ⊕ 12

300 + 379 = 679

Have students work independently or in groups to complete the Show and Grow exercises.

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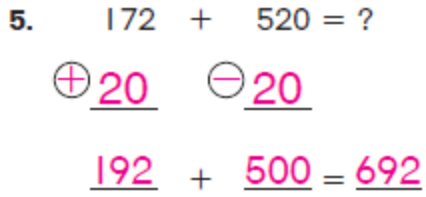
Apply and Grow
Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:



Think and Grow: Modeling Real Life
Students will use the information from the table to write and solve an addition equation. Then they will compare their answer to the problem to determine if they reached their goal.
Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)
Students will use their whiteboards to solve 212 + 308. Then they will compare answers with a partner.

If time permits, consider using the following resources.

Surface Level	Deep Level
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer	Resources by Chapter ● Enrichment and Extension Graphic Organizers Dynamic Assessment System ● Lesson Practice

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Lesson 9.5: Use Partial Sums to Add Three-Digit Numbers

Common Core State Standards: 2.NBT.B.7
Learning Target: Use partial sums to add.
Success Criteria

- Add the hundreds from each number.
- Add the tens from each number.
- Add the ones from each number.
- Add the partial sums.

Vocabulary: none
Classroom Materials: base ten blocks, whiteboards
Instructional Resources: Place Value Mat 3, Partial Sums Chart
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

Warm Up (in the Resources by Chapter)

- Daily Skills Practice: finding 100 more than a number
- Vocabulary Practice: partial sums
- Prerequisite Skills Practice: writing a three-digit number represented by base ten blocks

Dig In (in the Teaching Edition)
Students will work with a partner to model and record a number using base ten blocks. Then partners will take a few rods and units to represent an addition equation and solve.

Explore and Grow
Students will model each number with quick sketches. Then they will use place value to find the partial sums and add the partial sums to find the whole sum.

Think and Grow
Students will use a place value chart to add two three-digit numbers by finding the partial sums. Then they will add the partial sums to find the whole sum.

	Hundreds	Tens	Ones	
	4	2	5	
+	2	6	8	
Hundreds:	6	0	0	= 400 + 200
Tens:		8	0	= 20 + 60
Ones:		1	3	= 5 + 8
Sum	6	9	3	

Have students work independently or in groups to complete the Show and Grow exercises.

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Apply and Grow
Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:

14.
$$\begin{array}{r} {\scriptstyle 1} \\ 581 \\ +\,243 \\ \hline 824 \end{array}$$

Think and Grow: Modeling Real Life
Students will use a place value chart to model the story problem. Then they will find the partial sums and add them to find the whole sum. Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)
Students will work with a partner and take turns completing each step of a partial sum problem.

If time permits, consider using the following resources.

Lesson Resources	
Surface Level	**Deep Level**
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer Math Musicals	Resources by Chapter ● Enrichment and Extension Graphic Organizers Math Musicals Dynamic Assessment System ● Lesson Practice

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Lesson 9.6: Use Models to Add Three-Digit Numbers

Common Core State Standards: 2.NBT.B.7
Learning Target: Use models to add.
Success Criteria

- Explain when regrouping is needed.
- Make quick sketches to show regrouping.
- Show 10 ones regrouped as 1 ten or 10 tens regrouped as 1 hundred.
- Solve the addition problem.

Vocabulary: none
Classroom Materials: base ten blocks
Instructional Resources: none
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

Warm Up (in the Resources by Chapter)

- Daily Skills Practice: subtracting a one-digit number from a two-digit number (horizontal)
- Vocabulary Practice: addend
- Prerequisite Skills Practice: adding two-digit numbers using partial sums

Dig In (in the Teaching Edition)
Students will work with a partner to model and record a number using base ten blocks. Then partners will take a few rods and units to represent an addition equation and solve.

Explore and Grow
Students will make a quick sketch of the addition problem. Then they will use their sketch to use regrouping and solve.

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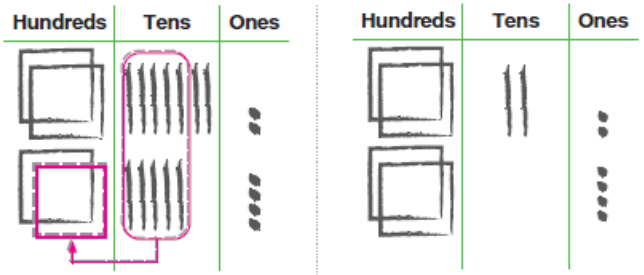
Think and Grow

Students will refer to quick sketches that model 272 + 154. Then they will use regrouping to fill out a place value chart and add to solve.



	Hundreds	Tens	Ones
	1	1	
	2	7	2
+	1	5	4
		2	6

	Hundreds	Tens	Ones
	1	1	
	2	7	2
+	1	5	4
	4	2	6

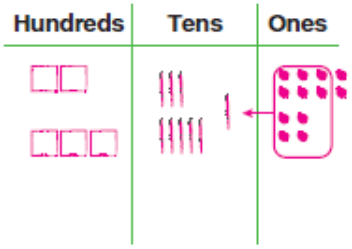
Have students work independently or in groups to complete the Show and Grow exercises.

Apply and Grow

Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:

2. 238 + 354 = ?



	Hundreds	Tens	Ones
	1	1	
	2	3	8
+	3	5	4
	5	9	2

Think and Grow: Modeling Real Life

Students will use place value to create an addition equation that models the story problem. Then they will compare their answer to the problem to see if the school reached the food drive goal.

Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)

Students will draw a quick sketch of 268 + 150 and record the sum.

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If time permits, consider using the following resources.

Lesson Resources	
Surface Level	**Deep Level**
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer	Resources by Chapter ● Enrichment and Extension Graphic Organizers Dynamic Assessment System ● Lesson Practice

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Lesson 9.7: Add Three-Digit Numbers

Common Core State Standards: 2.NBT.B.7
Learning Target: Add three-digit numbers.
Success Criteria

- Explain when regrouping is needed.
- Show 10 ones regrouped as 1 ten or 10 tens regrouped as 1 hundred.
- Solve the addition problem.

Vocabulary: none
Classroom Materials: none
Instructional Resources: none
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

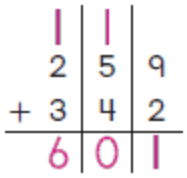
Warm Up (in the Resources by Chapter)

- Daily Skills Practice: counting by hundreds
- Vocabulary Practice: regroup
- Prerequisite Skills Practice: adding two-digit numbers by regrouping 10 ones as a ten

Dig In (in the Teaching Edition)
Students will determine if 0, 1, or 2 regroupings are needed for given addition problems by showing that amount of fingers.

Explore and Grow
Students will use place value charts to find the sum of three addition problems. Then they will compare the problems.

Think and Grow
Students will use place value and regrouping to solve the addition problem.



Have students work independently or in groups to complete the Show and Grow exercises.

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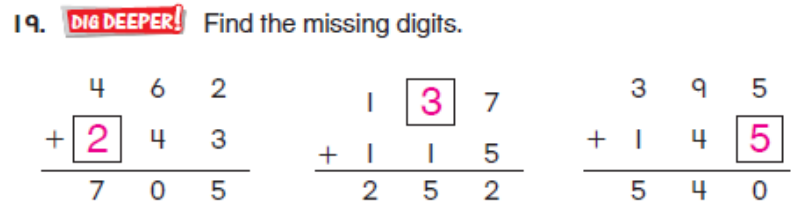
Apply and Grow
Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:



Think and Grow: Modeling Real Life
Students will write and solve an addition equation that models the story problem. Then they will compare their answer to determine if they put all of the puzzle pieces together.
Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)
Students will explain how to solve 202 + 345 to a partner.

If time permits, consider using the following resources.

Lesson Resources	
Surface Level	**Deep Level**
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer	Resources by Chapter ● Enrichment and Extension Graphic Organizers Dynamic Assessment System ● Lesson Practice

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Lesson 9.8: Add Up to 4 Two-Digit Numbers

Common Core State Standards: 2.NBT.B.6, 2.NBT.B.7
Learning Target: Add up to 4 two-digit numbers.
Success Criteria

- Explain what compatible numbers are.
- Explain how to add digits in like place values in any order.
- Add the ones, tens, and the hundreds to find the sum.

Vocabulary: compatible numbers
Classroom Materials: whiteboards
Instructional Resources: Vocabulary Cards
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

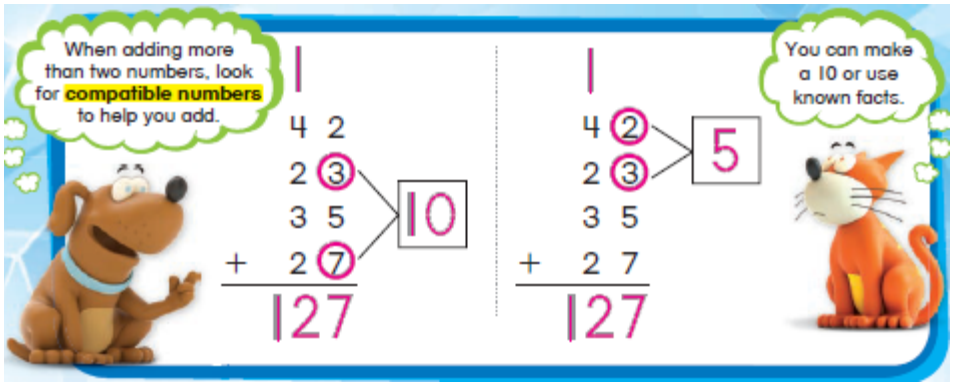
Warm Up (in the Resources by Chapter)

- Daily Skills Practice: matching standard form and expanded form of a three-digit number
- Vocabulary Practice: compare
- Prerequisite Skills Practice: making a 10 to add

Dig In (in the Teaching Edition)
Students will play "Addition Flash" to review addition strategies.

Explore and Grow
Students will use any strategy to solve an addition problem of 4 two-digit numbers. Then they will compare their strategy with a partner.

Think and Grow
Students will use two ways to find the sum of 4 two-digit numbers.



Have students work independently or in groups to complete the Show and Grow exercises.

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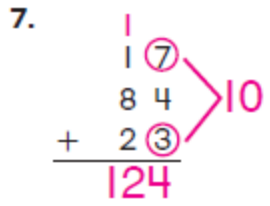
Apply and Grow
Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:



Think and Grow: Modeling Real Life
Students will write an addition problem to model the story problem. Then they will use compensation to find the sum.
Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)
Students will provide a tip for choosing the first two numbers to add when adding 4 two-digit numbers.

If time permits, consider using the following resources.

Lesson Resources	
Surface Level	**Deep Level**
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer	Resources by Chapter ● Enrichment and Extension Graphic Organizers Dynamic Assessment System ● Lesson Practice

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Lesson 9.9: Explain Addition Strategies

Common Core State Standards: 2.NBT.B.7, 2.NBT.B.9
Learning Target: Choose and explain a strategy to add.
Success Criteria

- Choose a strategy to add.
- Solve for the sum.
- Explain the strategy I used.

Vocabulary: none
Classroom Materials: whiteboards, chart paper
Instructional Resources: none
Pacing: 1 day (minimum: 45 minutes, recommended: 60 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

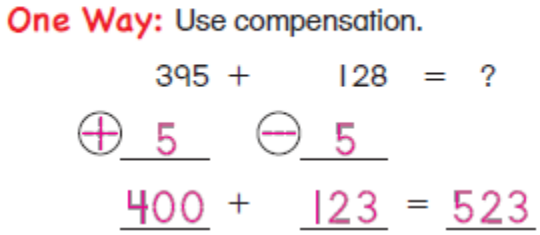
Warm Up (in the Resources by Chapter)

- Daily Skills Practice: subtracting a one-digit number from a two-digit number (vertical)
- Vocabulary Practice: thousand
- Prerequisite Skills Practice: adding two-digit numbers (horizontal)

Dig In (in the Teaching Edition)
Students will work in groups and use an assigned strategy to add three-digit numbers.

Explore and Grow
Students will use two strategies chosen from an addition strategy bank to find 274 + 519.

Think and Grow
Students will use two ways to solve 395 + 128. Then they will discuss why these strategies work and if there are other strategies they could use to solve.



Have students work independently or in groups to complete the Show and Grow exercises.

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Apply and Grow
Students will complete exercises to demonstrate their current understanding of the lesson.

Sample:

Think and Grow: Modeling Real Life
Students will use the strategy of their choice to solve 567 + 428. Then they will explain how they found their solution.
Have students work independently or in groups to complete the Show and Grow exercises.

Closure (in the Teaching Edition)
Students will find the number of days in the first four months of the year by adding 4 two-digit numbers.

If time permits, consider using the following resources.

Lesson Resources	
Surface Level	**Deep Level**
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer	Resources by Chapter ● Enrichment and Extension Graphic Organizers Dynamic Assessment System ● Lesson Practice

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End of Chapter 9: Add Numbers within 1,000

Classroom Materials: scissors, whiteboards, spinners, counters, dominoes
Instructional Resources: Addition Puzzle Cards, Addition Flip and Find Cards
Pacing: 3 days (minimum: 135 minutes, recommended: 180 minutes)

See Laurie's Notes in the Teaching Edition for her suggestions on how to effectively implement this lesson plan.

Day 1

Performance Task
Students will work with the number of pieces in robot kits to add numbers within 1,000.

Activity
Students will play Three In a Row: Three-Digit Addition to practice adding three-digit numbers.

Chapter Practice
Students will review what they learned in the chapter.

Day 2

Centers (in the Teaching Edition)
Students will participate in various centers to practice addition strategies.

- Center 1: Three in a Row: Three-Digit Addition
- Center 2: Skills Trainer
- Center 3: Addition Puzzle
- Center 4: Domino Add
- Center 5: Addition Flip and Find

Day 3

Chapter Assessment (in the Assessment Book)
Students will complete an assessment for the chapter.

If time permits, consider using the following resources.

Chapter Resources		
Surface Level	**Deep Level**	**Transfer Level**
Resources by Chapter ● Extra Practice ● Reteach Differentiating the Lesson Skills Review Handbook Skills Trainer Game Library Math Musicals	Resources by Chapter ● Enrichment and Extension Graphic Organizers Game Library Math Musicals	Dynamic Assessment System ● Chapter Test Assessment Book ● Chapter Tests A and B

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