



4th Grade

Tier 2 Intervention Lessons

Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for 4.NBT.5: Multiplying multi-digit numbers

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IES Recommendations for Tier 2 and 3 intervention lessons:

2. Instructional materials for students receiving interventions should focus intensely on in-depth treatment of whole numbers in kindergarten through grade 5 and on rational numbers in grades 4 through 8. These materials should be selected by committee.	Low
3. Instruction during the intervention should be explicit and systematic. This includes providing models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and frequent cumulative review.	Strong
4. Interventions should include instruction on solving word problems that is based on common underlying structures.	Strong
5. Intervention materials should include opportunities for students to work with visual representations of mathematical ideas and interventionists should be proficient in the use of visual representations of mathematical ideas.	Moderate
6. Interventions at all grade levels should devote about 10 minutes in each session to building fluent retrieval of basic arithmetic facts.	Moderate
7. Monitor the progress of students receiving supplemental instruction and other students who are at risk.	Low
8. Include motivational strategies in tier 2 and tier 3 interventions.	Low

(Institute of Educational Sciences, Assisting Students Struggling with Mathematics: Response to Intervention (RtI) for Elementary and Middle Schools, 2009, p. 6)

Gradual release of responsibility model

Teacher Responsibility

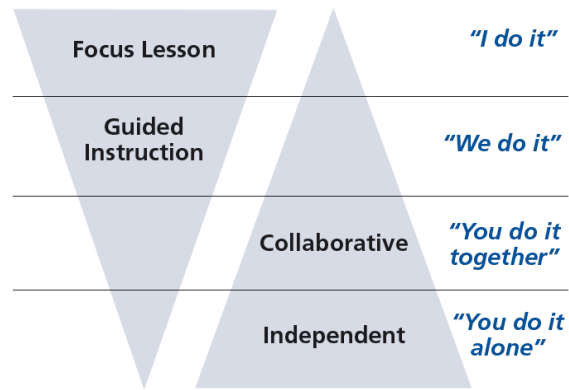


Figure 1

[\(Dr. Douglas Fisher, Effective Use of the Gradual Release of Responsibility Model\)](#)



Planning Guide: Session 1

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

Recommended Actions	
Beginning (15 min.)	<p><u>Review</u> the readiness standard with the intervention group using the Guided Review</p> <ul style="list-style-type: none">○ Introduce the learning target and why it is important for future learning○ Read each question on the Guided Review and ask students to share what they remember from the previous school year.
Middle (5 min.)	<p>➤ Ask students to <u>reflect</u> on their progress towards the learning target</p> <ul style="list-style-type: none">○ What did I remember about the learning target?○ What did I learn today about the learning target?○ How confident do I feel about doing the learning target on my own?
End (10 min.)	<p>➤ <u>Assess</u> each student's progress using Quick Check – Form A</p> <p>➤ Guide students to self-correct their Quick Check – Form A</p> <p>➤ Guide students to <u>chart their progress</u> by recording the date and Quick Check score in their Growth Chart</p> <p>➤ Collect each student's Quick Check and Growth Chart</p>
After	<p>➤ Create sub-groups to differentiate the middle of sessions 2 through 8</p> <ul style="list-style-type: none">○ Group 1 – Include students who <u>did not</u> meet the learning goal○ Group 2 – Include students who met or exceeded the learning goal



4th Grade Fall Guided Review

Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

1.

$$\begin{array}{r} 372 \\ + 214 \\ \hline \end{array}$$

2.

$$637 + 156 = \underline{\quad}$$



4th Grade Fall Guided Review

Readiness Standard 1 - 3.NBT.2a (Continued)

3.

$$\begin{array}{r} 168 \\ + 395 \\ \hline \end{array}$$



4th Grade Winter Guided Review

Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

1.

$$\begin{array}{r} 483 \\ + 312 \\ \hline \end{array}$$

2.

$$453 + 286 = \underline{\quad}$$



4th Grade Winter Guided Review

Readiness Standard 1 - 3.NBT.2a (Continued)

3.

$$\begin{array}{r} 375 \\ +486 \\ \hline \end{array}$$



4th Grade Spring Guided Review

Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

1.

$$\begin{array}{r} 361 \\ + 235 \\ \hline \end{array}$$

2.

$$528 + 364 = \underline{\quad}$$



4th Grade Spring Guided Review

Readiness Standard 1 - 3.NBT.2a (Continued)

3.

$$\begin{array}{r} 259 \\ +487 \\ \hline \end{array}$$



Session 1: Self-Reflection

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Briefly discuss student responses

- What did I remember about adding 3-digit numbers?

- What did I learn today about adding 3-digit numbers?

- How confident do I feel about adding 3-digit numbers on my own?
(Thumbs up, down, or sideways)



Quick Check - Form A

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

1.

$$\begin{array}{r} 573 \\ + 125 \\ \hline \end{array}$$

2.

$$492 + 385 = \underline{\quad}$$

3.

$$723 + 149 = \underline{\quad}$$

4.

$$\begin{array}{r} 487 \\ + 964 \\ \hline \end{array}$$



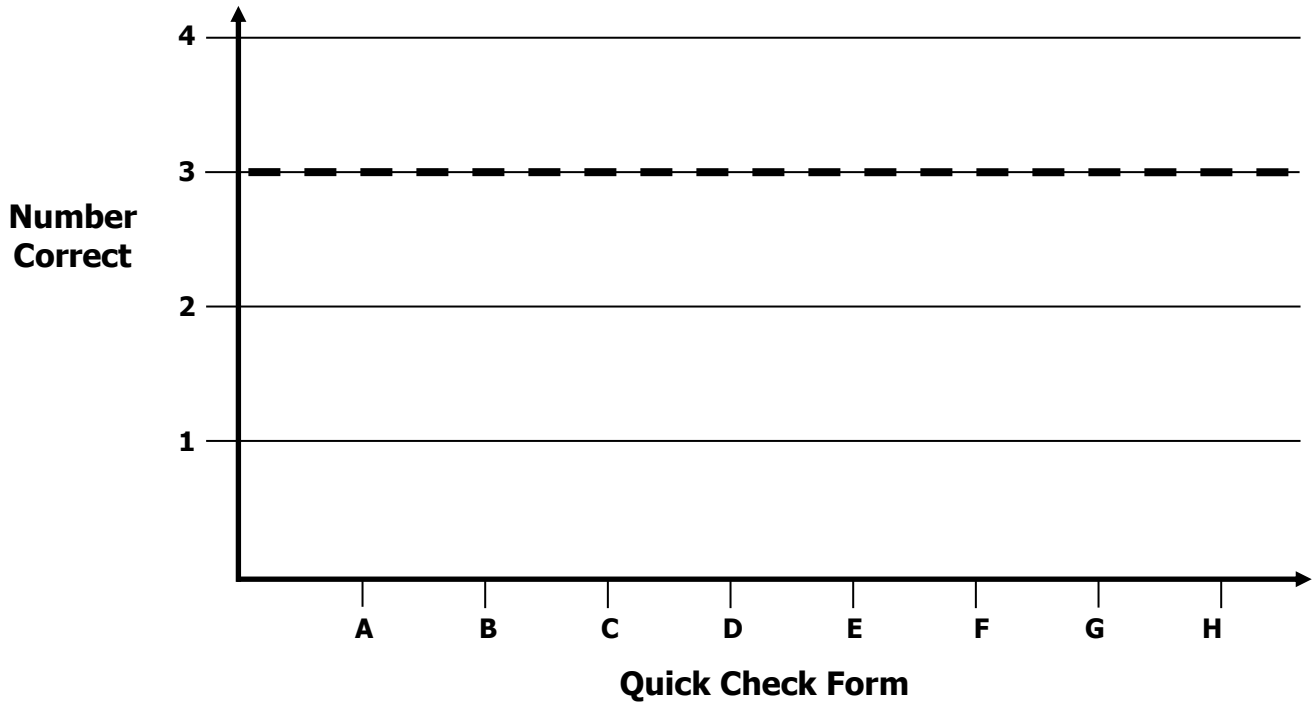
Growth Chart

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Goal: 3 out of 4 correct



Intervention	Date	Score
Session 1:		
Session 2:		
Session 3:		
Session 4:		
Session 5:		
Session 6:		
Session 7:		
Session 8:		



Planning Guide: Sessions 2 Through 8

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

Recommended Actions			
Beginning (5 min.)	<ul style="list-style-type: none"> ➤ Review the learning target with the whole group and ask each student to set a goal. 		
Middle (15 min.)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Group 1: Students who scored below the learning goal on the previous Quick Check.</p> <ul style="list-style-type: none"> ➤ Model solving a word problem – “I do” ➤ Guided Practice – “We do” <p>Session 2: Add 3-digit numbers using base-ten blocks and place-value cards</p> <p>Session 3: Add 3-digit numbers using base-ten drawings and showing sub-totals</p> <p>Session 4: Add 3-digit numbers using place-value understanding and showing new tens</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Group 2: <i>(Students who met the learning goal)</i></p> <ul style="list-style-type: none"> ➤ Independent practice – “You do alone” <p>Activity: <i>“Build the Greater Sum”</i></p> <p style="text-align: center;"><i>(Look for additional activities in 3rd grade core instruction resources.)</i></p> </td> </tr> </table>	<p>Group 1: Students who scored below the learning goal on the previous Quick Check.</p> <ul style="list-style-type: none"> ➤ Model solving a word problem – “I do” ➤ Guided Practice – “We do” <p>Session 2: Add 3-digit numbers using base-ten blocks and place-value cards</p> <p>Session 3: Add 3-digit numbers using base-ten drawings and showing sub-totals</p> <p>Session 4: Add 3-digit numbers using place-value understanding and showing new tens</p>	<p>Group 2: <i>(Students who met the learning goal)</i></p> <ul style="list-style-type: none"> ➤ Independent practice – “You do alone” <p>Activity: <i>“Build the Greater Sum”</i></p> <p style="text-align: center;"><i>(Look for additional activities in 3rd grade core instruction resources.)</i></p>
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End (10 min.)	<ul style="list-style-type: none"> ➤ Bring the students back together. ➤ Ask students to reflect on their progress towards the learning target <ul style="list-style-type: none"> ○ What did I learn today about adding 3-digit numbers numbers? ○ How confident do you feel about adding 3-digit numbers on my own? (Thumbs up, down, or sideways) ➤ Assess each student’s progress using the next Quick Check form ➤ Guide students to self-correct their Quick Check ➤ Guide students to chart their progress in their Growth Chart <ul style="list-style-type: none"> ○ If not using Delta Math lessons, record the activity in the table ➤ Collect each student’s Quick Check and Growth Chart 		
After	<ul style="list-style-type: none"> ➤ Regroup students to differentiate the middle of sessions 3 through 8 <ul style="list-style-type: none"> ○ Promote students who met the learning goal to group 2 ○ Exit students who met the learning goal for a third time ➤ Problem solve with a team to plan additional support for students who did not exit 		



Session 2: Modeling (I Do)

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

A food truck sold 185 lunches on Saturday and 152 lunches on Sunday. How many total lunches did the food truck sell on Saturday and Sunday?



Session 2: Modeling (I Do - Teacher Notes)

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

A food truck sold 185 lunches on Saturday and 152 lunches on Sunday. How many total lunches did the food truck sell on Saturday and Sunday?

I am going to think aloud to model solving this problem.

Your job is to watch, listen, think and ask questions.

First, it is important to know what the problem is about.

The problem is about a food truck selling lunches.

Second, I need to determine what I need to find.

I need to find the total number of lunches sold on Saturday and Sunday.

Third, I need to determine what I know.

I know that the food truck sold 185 lunches on Saturday and 152 lunches on Sunday.

Fourth, I need to figure out what I can try.

I am going to try using base-ten blocks and place-value cards to help me find the total number of lunches.

I will begin by building the problem...

Saturday's total was 1 hundred, 8 tens and 5 ones.

(Build the number 185 with place-value blocks and cards.)

And, Sunday's total was 1 hundred, 6 tens and 2 ones.

(Build the number 162 with base-ten blocks and place-value cards.)

To find the total number of lunches on both days, I need to use addition.

(Set the plus sign "+" to the left of the 162.)

Next, I will find each sub-total...

2 hundreds equals 200...14 tens equals 140...and 7 ones.

(Point to the blocks, re-arrange them and set the cards under each type.)

Last, I need to combine place-value to find the total...

2 hundreds and 10 tens make 3 hundreds.

(Set the 300 card underneath the sub-totals)

This leaves me with 4 tens and 7 ones. (Set the 40 card on top of the 300 and 7 on top of the 40.)

Last, I need to make sure that my answer makes sense.

I found that the food truck sold 347 total lunches on Saturday and Sunday. It makes sense because I built each number with base-ten blocks and combined the place-values to see a total of 3 hundreds, 4 tens and 7 ones.

Session 2: Modeling (I Do - Visual Models)
4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers **Readiness** for multiplying multi-digit numbers

A food truck sold 185 lunches on Saturday and 152 lunches on Sunday. How many total lunches did the food truck sell on Saturday and Sunday?

Build the Problem: Shows base-ten blocks and place-value cards for 185 and 162. A plus sign is placed between the numbers.

Find the Sub-totals: Shows the numbers 200, 140, and 7 separated from the blocks. A plus sign is placed to the left of the 162.

Combine: Shows the final arrangement of blocks and cards, resulting in 347.

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Session 2: Modeling (I Do – Visual Models)

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

A food truck sold 185 lunches on Saturday and 152 lunches on Sunday. How many total lunches did the food truck sell on Saturday and Sunday?

Build the Problem			<table border="1"> <tr> <td>1</td> <td>8</td> <td>5</td> </tr> </table>	1	8	5				
1	8	5								
			<table border="1"> <tr> <td>1</td> <td>6</td> <td>2</td> </tr> </table>	1	6	2				
1	6	2								
Find the Sub-totals										
	<table border="1"> <tr> <td>2</td> <td>0</td> <td>0</td> </tr> </table>	2	0	0	<table border="1"> <tr> <td>1</td> <td>4</td> <td>0</td> </tr> </table>	1	4	0	<table border="1"> <tr> <td>7</td> </tr> </table>	7
2	0	0								
1	4	0								
7										
Combine			<table border="1"> <tr> <td>3</td> <td>4</td> <td>7</td> </tr> </table>	3	4	7				
3	4	7								

Place-Value Cards (1 → 100)

1	6	2	0	6	0	
2	7	3	0	7	0	
3	8	4	0	8	0	
4	9	5	0	9	0	
5	1	0	1	0	0	
<	>	=	+	-	x	÷
Less Than	Greater Than	Equal to				

Place-Value Cards (200 → 900)

2 0 0

3 0 0

4 0 0

5 0 0

6 0 0

7 0 0

8 0 0

9 0 0



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 2: Guided Practice (We Do)

Materials:

- Base-Ten Blocks (20 tens and 20 ones)
- Place-value Cards (2 sets)

We Do Together: (Teacher Actions)

- Say the addition problem.
- Use base-ten blocks and place-value cards to add the 3-digit numbers.

1. $437 + 245$	2. $315 + 162$
3. $183 + 239$	4. $345 + 271$

You Do Together: (As a class, or in small groups)

- Students take turns leading and repeat the steps to add 3-digit numbers.

5. $253 + 328$	6. $426 + 249$
7. $167 + 425$	8. $385 + 152$
9. $374 + 168$	10. $236 + 267$



Session 2: Self-Reflection

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Briefly discuss student responses

- What did I learn today about adding 3-digit numbers?

- How confident do I feel about adding 3-digit numbers on my own?
(Thumbs up, down, or sideways)



Quick Check - Form B

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

1.

$$\begin{array}{r} 375 \\ + 518 \\ \hline \end{array}$$

2.

$$162 + 427 = \underline{\quad}$$

3.

$$572 + 389 = \underline{\quad}$$

4.

$$\begin{array}{r} 576 \\ + 849 \\ \hline \end{array}$$



Session 3: Modeling (I Do)

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

Jack had 265 baseball cards before his 10th birthday. Jack's uncle gave him 197 baseball cards on his 10th birthday. How many baseball cards did Jack have after his 10th birthday?



Session 3: Modeling (I Do - Teacher Notes)

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

Jack had 265 baseball cards before his 10th birthday. Jack’s uncle gave him 197 baseball cards on his 10th birthday. How many baseball cards did Jack have after his 10th birthday?

I am going to think aloud to model solving this problem.

Your job is to watch, listen, think and ask questions.

First, it is important to know what the problem is about.

The problem is about Jack’s baseball cards.

Second, I need to determine what I need to find.

I need to find how many baseball cards Jack had after his 10th birthday.

Third, I need to determine what I know.

I know Jack had 265 baseball cards and his uncle gave him 197 baseball cards.

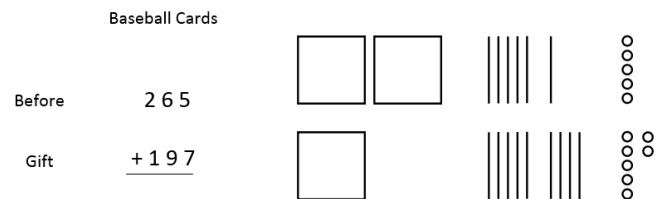
Fourth, I need to figure out what I can try.

I am going to try using base-ten drawings to help me combine the hundreds, tens and ones and record them on separate lines.

I will begin by writing and drawing what I know... 265 cards can be drawn as 2 hundreds, 6 tens and 5 ones. (Write, label and draw the 265 baseball cards.)

And, 197 cards can be drawn as 1 hundred, 9 tens and 7 ones. (Write, label and draw the 197 baseball cards.)

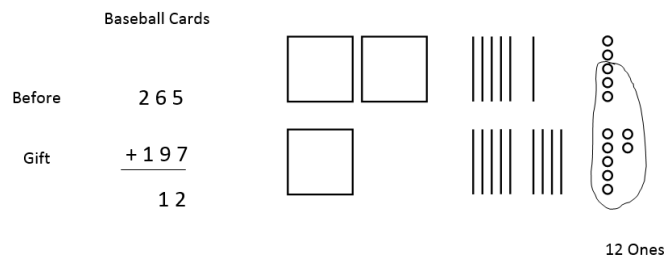
Since I need to find the total, I will write a plus sign and a line underneath the 197. (Write the + sign and line.)



To add the ones...5 + 7...I will circle ten of them to help me...7 ones and 3 ones make 10. (Circle ten ones.)

And 2 more ones make 12 ones. (Point to the 2 ones and 10 circled ones. Then write “12 Ones” under the drawing.)

I will record the 12 ones under the answer line. (Write 12 as a sub-total.)



Continued:

<p>To add the tens...6 + 9...I will circle 10 of them to help me...9 tens and 1 ten make 10 tens. (Circle 10 tens.)</p> <p>And 5 more tens make 15 tens. (Point to the 10 circled tens and extra 5 tens and write "15 tens" under the drawing.)</p> <p>I will record the 15 tens as 150 on another line. (Write 150 as a sub-total.)</p>	<p>Baseball Cards</p> <table style="width: 100%;"> <tr> <td style="width: 20%;">Before</td> <td style="width: 20%; text-align: right;">2 6 5</td> <td style="width: 20%; text-align: center;"> </td> <td style="width: 40%;"></td> </tr> <tr> <td>Gift</td> <td style="text-align: right;">+ 1 9 7</td> <td style="text-align: center;"> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">1 2</td> <td style="text-align: center;"> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">1 5 0</td> <td style="text-align: center;"> <p>15 Tens 12 Ones</p> </td> <td></td> </tr> </table>	Before	2 6 5			Gift	+ 1 9 7				1 2				1 5 0	<p>15 Tens 12 Ones</p>									
Before	2 6 5																								
Gift	+ 1 9 7																								
	1 2																								
	1 5 0	<p>15 Tens 12 Ones</p>																							
<p>To add the hundreds...2 + 1...I see a total of 3. (Point to the 2 hundreds and 1 hundred. Then write "3 hundreds" under the drawing.)</p> <p>I will record the 3 hundreds as 300 on another line. (Write 300 as a sub-total.)</p>	<p>Baseball Cards</p> <table style="width: 100%;"> <tr> <td style="width: 20%;">Before</td> <td style="width: 20%; text-align: right;">2 6 5</td> <td style="width: 20%; text-align: center;"> </td> <td style="width: 40%;"></td> </tr> <tr> <td>Gift</td> <td style="text-align: right;">+ 1 9 7</td> <td style="text-align: center;"> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">1 2</td> <td style="text-align: center;"> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">1 5 0</td> <td style="text-align: center;"> <p>3 Hundreds 15 Tens 12 Ones</p> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">3 0 0</td> <td></td> <td></td> </tr> </table>	Before	2 6 5			Gift	+ 1 9 7				1 2				1 5 0	<p>3 Hundreds 15 Tens 12 Ones</p>			3 0 0						
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	1 2																								
	1 5 0	<p>3 Hundreds 15 Tens 12 Ones</p>																							
	3 0 0																								
<p>Last, I will draw a final answer line and add the sub-totals from each line. (Draw the final answer line and the label "Total Cards.")</p> <p>1 hundred plus 3 hundreds equal 4 hundreds. (Point to the hundred's digits of each sub-total and write "4" in the hundred's place of the answer.)</p> <p>1 ten plus 5 tens plus 0 tens equals 6 tens. (Point to the ten's digits of each sub-total and write "6" in the ten's place of the answer.)</p> <p>And 2 ones plus 0 ones plus 0 ones equals 2 ones. (Point to the one's digits of each sub-total and write "2" in the one's place of the answer.)</p>	<p>Baseball Cards</p> <table style="width: 100%;"> <tr> <td style="width: 20%;">Before</td> <td style="width: 20%; text-align: right;">2 6 5</td> <td style="width: 20%; text-align: center;"> </td> <td style="width: 40%;"></td> </tr> <tr> <td>Gift</td> <td style="text-align: right;">+ 1 9 7</td> <td style="text-align: center;"> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">1 2</td> <td style="text-align: center;"> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">1 5 0</td> <td style="text-align: center;"> <p>3 Hundreds 15 Tens 12 Ones</p> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">3 0 0</td> <td></td> <td></td> </tr> <tr> <td>Total Cards</td> <td style="text-align: right;">4 6 2</td> <td></td> <td></td> </tr> </table>	Before	2 6 5			Gift	+ 1 9 7				1 2				1 5 0	<p>3 Hundreds 15 Tens 12 Ones</p>			3 0 0			Total Cards	4 6 2		
Before	2 6 5																								
Gift	+ 1 9 7																								
	1 2																								
	1 5 0	<p>3 Hundreds 15 Tens 12 Ones</p>																							
	3 0 0																								
Total Cards	4 6 2																								
<p>Last, I need to make sure that my answer makes sense.</p> <p>I found that Jack had a total of 462 baseball cards. It makes sense because I made a math drawing of each number of cards and combined them to see a total of 4 hundreds, 6 tens and 2 ones.</p>																									



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 3: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Say the addition problem.
- Use a base-ten drawing to and find each sub-total to add the 3-digit numbers.

1.

$$\begin{array}{r} 139 \\ + 654 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 953 \\ + 328 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 749 \\ + 675 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 3: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to add 3-digit numbers using place-value drawings.

4.

$$\begin{array}{r} 354 \\ + 427 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 736 \\ + 547 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 974 \\ + 458 \\ \hline \end{array}$$

Session 3: Guided Practice *(We Do – Teacher Notes)*

We Do Together: (Teacher Actions)

- Say the addition problem.
- Use a base-ten drawing to and find each sub-total to add the 3-digit numbers.

<p>1.</p> $\begin{array}{r} 139 \\ + 654 \\ \hline \end{array}$ <p>"Add the ones" 13</p> <p>"Add the tens" 80</p> <p>"Add the hundreds" $\begin{array}{r} 700 \\ \hline 793 \end{array}$</p>		
<p>2.</p> $\begin{array}{r} 953 \\ + 328 \\ \hline \end{array}$ <p>"Add the ones" 11</p> <p>"Add the tens" 70</p> <p>"Add the hundreds" $\begin{array}{r} 1200 \\ \hline 1281 \end{array}$</p>		
<p>3.</p> $\begin{array}{r} 749 \\ + 675 \\ \hline \end{array}$ <p>"Add the ones" 14</p> <p>"Add the tens" 110</p> <p>"Add the hundreds" $\begin{array}{r} 1300 \\ \hline 1424 \end{array}$</p>		



Session 3: Self-Reflection

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Briefly discuss student responses

- What did I learn today about adding 3-digit numbers?

- How confident do I feel about adding 3-digit numbers on my own?
(Thumbs up, down, or sideways)



Quick Check - Form C

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

1.

$$\begin{array}{r} 647 \\ + 295 \\ \hline \end{array}$$

2.

$$637 + 291 = \underline{\quad}$$

3.

$$938 + 297 = \underline{\quad}$$

4.

$$\begin{array}{r} 358 \\ + 421 \\ \hline \end{array}$$



Session 4: Modeling (I Do)

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

Smith Elementary School combines fourth and fifth graders during their lunch recess. On Tuesday, there were 248 fourth graders and 175 fifth graders on the playground. What was the total number of students on the playground on Tuesday?



Session 4: Modeling (I Do - Teacher Notes)

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Readiness for multiplying multi-digit numbers

Smith Elementary School combines fourth and fifth graders during their lunch recess. On Tuesday, there were 248 fourth graders and 175 fifth graders on the playground. What was the total number of students on the playground on Tuesday?

I am going to think aloud to model solving this problem.

Your job is to watch, listen, think and ask questions.

First, it is important to know what the problem is about.

The problem is about four and fifth graders on the playground.

Second, I need to determine what I need to find.

I need to find how many students were on the playground on Tuesday.

Third, I need to determine what I know.

I know there were 248 fourth graders and 175 fifth graders on the playground on Tuesday.

Fourth, I need to figure out what I can try.

I am going to try using base-ten drawings to help me combine the hundreds, tens and ones and record them on the same line.

I will begin by writing and drawing what I know...the 248 fourth graders can be drawn as 2 hundreds, 4 tens and 8 ones.

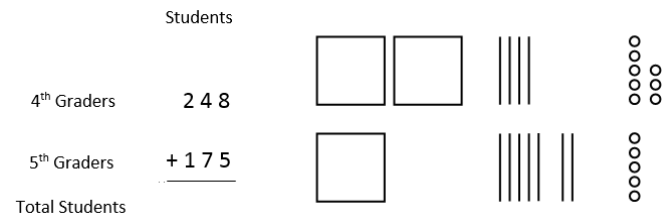
(Write, label and draw the 248 4th graders.)

And, the 175 fifth graders can be drawn as 1 hundred, 7 tens and 5 ones.

(Write, label and draw the 175 5th graders.)

Since I need to find the total, I will write a plus sign and a line underneath the 175.

(Write the + sign, line and "Total Students".)



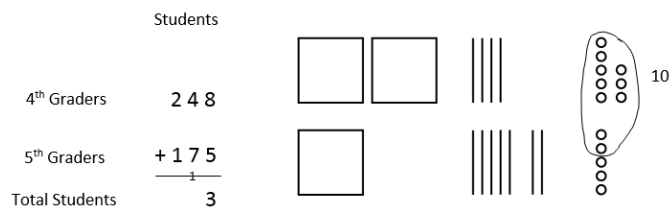
To add the ones...8 + 5...I will circle ten to help me.

8 and 2 makes 10 and 3 more is 13.

(Circle ten ones and write 10 next to it.)

I will record the new ten in the ten's place on the answer line and the 3 ones in the answer.



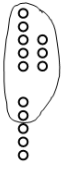

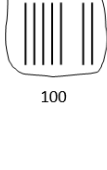

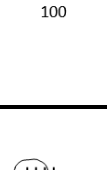



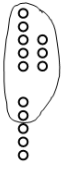

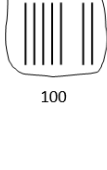

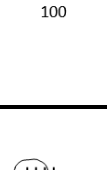



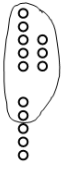

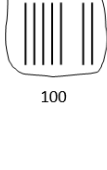

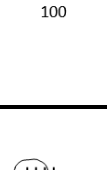

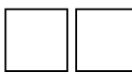

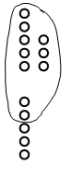

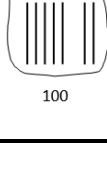

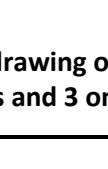
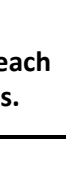
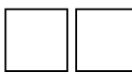

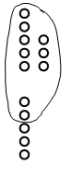

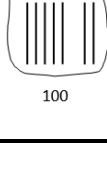

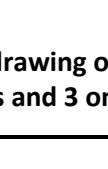
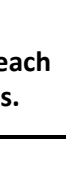
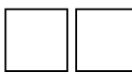

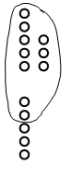

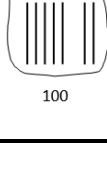

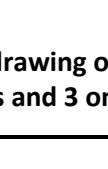
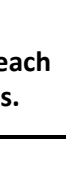
(Write "1" in the ten's place on the answer line and "3" in the one's digit of the answer.)



Session 4: Modeling (I Do - Teacher Notes)

4th Grade - Readiness Standard 1 - 3.NBT.2a

Continued:

<p>To find add the tens...$4 + 7 + 1$...I will circle 10 to help me.</p> <p>7 and 3 make 10 and 1 more is 11. <i>(Circle 10 tens and write 100 next to it.)</i></p> <p>Plus the new ten is 12 tens, or 120</p> <p>I will record the new hundred on the answer line and the 2 tens in the answer. <i>(Write "1" in the hundred's place on the answer line and "2" in the ten's digit of the answer.)</i></p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding-bottom: 5px;">Students</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td style="padding-bottom: 5px;">4th Graders</td> <td style="padding-bottom: 5px; text-align: right;">2</td> <td style="padding-bottom: 5px; text-align: right;">4</td> <td style="padding-bottom: 5px; text-align: right;">8</td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> </tr> <tr> <td style="padding-bottom: 5px;">5th Graders</td> <td style="padding-bottom: 5px; text-align: right;">+</td> <td style="padding-bottom: 5px; text-align: right;">1</td> <td style="padding-bottom: 5px; text-align: right;">7</td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> </tr> <tr> <td style="padding-bottom: 5px;">Total Students</td> <td style="padding-bottom: 5px; text-align: right;">=</td> <td style="padding-bottom: 5px; text-align: right;">1</td> <td style="padding-bottom: 5px; text-align: right;">2</td> <td style="padding-bottom: 5px; text-align: right;">3</td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> </tr> </tbody> </table>	Students						4 th Graders	2	4	8				5 th Graders	+	1	7				Total Students	=	1	2	3		
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5 th Graders	+	1	7																									
Total Students	=	1	2	3																								
<p>To add the hundreds...$2 + 1 + 1$..., I can do this in my head...4. <i>(Point to the original 2 hundreds and the new hundred in the drawing.)</i></p> <p>I will record 4 hundreds in the hundred's place in the answer. <i>(Write "4" in the hundred's place of the answer.)</i></p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding-bottom: 5px;">Students</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td style="padding-bottom: 5px;">4th Graders</td> <td style="padding-bottom: 5px; text-align: right;">2</td> <td style="padding-bottom: 5px; text-align: right;">4</td> <td style="padding-bottom: 5px; text-align: right;">8</td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> </tr> <tr> <td style="padding-bottom: 5px;">5th Graders</td> <td style="padding-bottom: 5px; text-align: right;">+</td> <td style="padding-bottom: 5px; text-align: right;">1</td> <td style="padding-bottom: 5px; text-align: right;">7</td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> </tr> <tr> <td style="padding-bottom: 5px;">Total Students</td> <td style="padding-bottom: 5px; text-align: right;">=</td> <td style="padding-bottom: 5px; text-align: right;">4</td> <td style="padding-bottom: 5px; text-align: right;">2</td> <td style="padding-bottom: 5px; text-align: right;">3</td> <td style="padding-bottom: 5px;"></td> <td style="padding-bottom: 5px;"></td> </tr> </tbody> </table>	Students						4 th Graders	2	4	8				5 th Graders	+	1	7				Total Students	=	4	2	3		
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Total Students	=	4	2	3																								
<p>Last, I need to make sure that my answer makes sense.</p> <p>I found that there were 423 students on the playground. It makes sense because I made a math drawing of each grade level of students, created new tens and hundreds to help me the total of 4 hundreds, 2 tens and 3 ones.</p>																												



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Add the 3-digit numbers using your place-value understanding and finding new groups of 10.
- Draw a picture to check your work or help you find the answer.

1.

$$\begin{array}{r} 438 \\ + 654 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 953 \\ + 527 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 749 \\ + 684 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 4: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to add the 3-digit numbers.

5. $\begin{array}{r} 517 \\ + 386 \\ \hline \end{array}$	6. $\begin{array}{r} 589 \\ + 576 \\ \hline \end{array}$
7. $\begin{array}{r} 695 \\ + 978 \\ \hline \end{array}$	8. $\begin{array}{r} 527 \\ + 385 \\ \hline \end{array}$
9. $\begin{array}{r} 725 \\ + 397 \\ \hline \end{array}$	10. $\begin{array}{r} 846 \\ + 429 \\ \hline \end{array}$

Session 4: Guided Practice *(We Do – Teacher Notes)*

We Do Together: (Teacher Actions)

- Add the 3-digit numbers using your place-value understanding and finding new groups of 10.
- Draw a picture to check your work or help you find the answer.

1.	$\begin{array}{r} 438 \\ + 654 \\ \hline 1092 \end{array}$				
2.	$\begin{array}{r} 953 \\ + 527 \\ \hline 1480 \end{array}$				
3.	$\begin{array}{r} 749 \\ + 684 \\ \hline 1433 \end{array}$				



Session 4: Self-Reflection

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Briefly discuss student responses

- What did I learn today about adding 3-digit numbers?

- How confident do I feel about adding 3-digit numbers on my own?
(Thumbs up, down, or sideways)



Quick Check - Form D

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

1.

$$\begin{array}{r} 428 \\ + 167 \\ \hline \end{array}$$

2.

$$437 + 186 = \underline{\quad}$$

3.

$$515 + 463 = \underline{\quad}$$

4.

$$\begin{array}{r} 678 \\ + 689 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 5: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Say the addition problem.
- Use a base-ten drawing to and find each sub-total to add the 3-digit numbers.

1.

$$\begin{array}{r} 149 \\ + 536 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 863 \\ + 238 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 639 \\ + 785 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 5: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to add 3-digit numbers using place-value drawings.

4.

$$\begin{array}{r} 463 \\ + 529 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 627 \\ + 435 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 895 \\ + 348 \\ \hline \end{array}$$



Session 5: Self-Reflection

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Briefly discuss student responses

- What did I learn today about adding 3-digit numbers?

- How confident do I feel about adding 3-digit numbers on my own?
(Thumbs up, down, or sideways)



Quick Check - Form E

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

1.

$$\begin{array}{r} 573 \\ + 125 \\ \hline \end{array}$$

2.

$$492 + 385 = \underline{\quad}$$

3.

$$723 + 149 = \underline{\quad}$$

4.

$$\begin{array}{r} 487 \\ + 964 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 6: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Say the addition problem.
- Use a base-ten drawing to and find each sub-total to add the 3-digit numbers.

1.

$$\begin{array}{r} 154 \\ + 639 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 928 \\ + 353 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 775 \\ + 649 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 6: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to add 3-digit numbers using place-value drawings.

4.

$$\begin{array}{r} 327 \\ + 454 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 747 \\ + 536 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 958 \\ + 474 \\ \hline \end{array}$$



Session 6: Self-Reflection

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Briefly discuss student responses

- What did I learn today about adding 3-digit numbers?

- How confident do I feel about adding 3-digit numbers on my own?
(Thumbs up, down, or sideways)



Quick Check - Form F

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

1.

$$\begin{array}{r} 375 \\ + 518 \\ \hline \end{array}$$

2.

$$162 + 427 = \underline{\quad}$$

3.

$$572 + 389 = \underline{\quad}$$

4.

$$\begin{array}{r} 576 \\ + 849 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 7: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Add the 3-digit numbers using your place-value understanding and finding new groups of 10.
- Draw a picture to check your work or help you find the answer.

1.

$$\begin{array}{r} 429 \\ + 647 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 862 \\ + 495 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 758 \\ + 679 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 7: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to add the 3-digit numbers.

5.

$$\begin{array}{r} 471 \\ + 268 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 698 \\ + 676 \\ \hline \end{array}$$

7.

$$\begin{array}{r} 659 \\ + 787 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 872 \\ + 358 \\ \hline \end{array}$$

9.

$$\begin{array}{r} 852 \\ + 479 \\ \hline \end{array}$$

10.

$$\begin{array}{r} 764 \\ + 592 \\ \hline \end{array}$$



Session 7: Self-Reflection

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Briefly discuss student responses

- What did I learn today about adding 3-digit numbers?

- How confident do I feel about adding 3-digit numbers on my own?
(Thumbs up, down, or sideways)



Quick Check - Form G

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

1.

$$\begin{array}{r} 647 \\ + 295 \\ \hline \end{array}$$

2.

$$637 + 291 = \underline{\quad}$$

3.

$$938 + 297 = \underline{\quad}$$

4.

$$\begin{array}{r} 358 \\ + 421 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 8: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Add the 3-digit numbers using your place-value understanding and finding new groups of 10.
- Draw a picture to check your work or help you find the answer.

1.

$$\begin{array}{r} 645 \\ + 383 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 534 \\ + 972 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 694 \\ + 748 \\ \hline \end{array}$$



Name _____ Date _____

Learning Target: I will add 3-digit numbers

4th Grade - Readiness Standard 1 - 3.NBT.2a

Session 8: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to add the 3-digit numbers.

5.

$$\begin{array}{r} 317 \\ + 586 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 476 \\ + 589 \\ \hline \end{array}$$

7.

$$\begin{array}{r} 985 \\ + 678 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 327 \\ + 584 \\ \hline \end{array}$$

9.

$$\begin{array}{r} 397 \\ + 735 \\ \hline \end{array}$$

10.

$$\begin{array}{r} 436 \\ + 819 \\ \hline \end{array}$$



Session 8: Self-Reflection

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Briefly discuss student responses

- What did I learn today about adding 3-digit numbers?

- How confident do I feel about adding 3-digit numbers on my own?
(Thumbs up, down, or sideways)



Quick Check - Form H

4th Grade - Readiness Standard 1 - 3.NBT.2a

Name _____ Date _____

Learning Target: I will add three-digit numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

1.

$$\begin{array}{r} 428 \\ + 167 \\ \hline \end{array}$$

2.

$$437 + 186 = \underline{\quad}$$

3.

$$515 + 463 = \underline{\quad}$$

4.

$$\begin{array}{r} 678 \\ + 689 \\ \hline \end{array}$$



Independent Practice

4th Grade - Readiness Standard 1 - 3.NBT.2a

Learning Target: I will add 3-digit numbers

Title of Game: Build the Greater Sum

Number of Players: 2

Objective: To build the greatest sum.

Materials: 1 set of 3-digit number cards per group and 1 recording sheet per player.

Directions:

- Shuffle the 3-digit number cards and place them face down in a pile on the table.
- Players take turns: Choose three 3-digit number cards, place 2 of them on the game mat below to create an addition problem and discard the card not used.
- After both 3-digit numbers addition problems have been created, each player writes their problem on the recording sheet and finds their sum.
- Each player shares their problem and the sum.

"My addition problem is ____ + ____."

"My sum is ____."

- The player with the greatest sum circles the problem on their recording sheet.
- Collect the 3-digit-cards and repeat the steps to build another "greatest" sum.
- The winner of the game is the player with the most problems circled.

Player 1

+

Player 2

+



Name _____ Date _____

Learning Target: I will add 3-digit numbers

Independent Practice: Build the Greater Sum (Recording Sheet)

<p>Round 1</p> $\begin{array}{r} + \\ \hline \end{array}$	<p>Round 2</p> $\begin{array}{r} + \\ \hline \end{array}$
<p>Round 3</p> $\begin{array}{r} + \\ \hline \end{array}$	<p>Round 4</p> $\begin{array}{r} + \\ \hline \end{array}$
<p>Round 5</p> $\begin{array}{r} + \\ \hline \end{array}$	<p>Round 6</p> $\begin{array}{r} + \\ \hline \end{array}$



3-Digit Number Cards (Set A)

4th Grade - Readiness Standard 1 - 3.NBT.2a and 3.NBT.2b

1 9 2 Set A	2 8 4 Set A	3 7 6 Set A
4 6 8 Set A	5 5 1 Set A	6 4 3 Set A
7 3 5 Set A	8 2 7 Set A	9 1 9 Set A
1 5 8 Set A	2 7 6 Set A	3 9 4 Set A
4 1 2 Set A	5 3 7 Set A	6 8 5 Set A
7 2 3 Set A	8 4 9 Set A	9 6 1 Set A



3-Digit Number Cards (Set B)

4th Grade - Readiness Standard 1 - 3.NBT.2a and 3.NBT.2b

1 9 7 Set B	2 8 9 Set B	3 7 2 Set B
4 6 3 Set B	5 5 8 Set B	6 4 7 Set B
7 3 1 Set B	8 2 4 Set B	9 1 2 Set B
1 5 2 Set B	2 7 4 Set B	3 9 8 Set B
4 1 7 Set B	5 3 4 Set B	6 8 7 Set B
7 2 6 Set B	8 4 2 Set B	9 6 8 Set B



Questions for Solving Word Problems

Q_1

What is the problem about?

Q_2

What do I need to find?

Q_3

What do I know?

Q_4

What can I try?

Q_5

Does my answer make sense?



Steps for Solving Word Problems

Q₁. *What is the problem about?*

Q₂. *What do I need to find?*

Q₃. *What do I know?*

Q₄. *What can I try?*

Q₅. *Does my answer make sense?*