

## Tier 3

# Intervention Lessons 

2.NBT.5a

Learning Target: I will add 2-digit numbers
Readiness for 3.NBT.2a: Add 3-digit numbers
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Sessions 1 through 8: Lesson Resources ..... p. 4-42
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Classroom Poster: Questions for Solving Word Problems ..... p. 46
Tier 1 Support Classroom Poster: Steps for Solving Word Problems ..... p. 47

| Recommended Actions |  |
| :---: | :---: |
| Beginning (5 min.) | Review the learning target with the whole group <br> Ask each student to set a goal for the day based on their previous Quick Check Score Have each student use a highlighter to plot their goal for the day |
| Middle (15 min.) | Model solving a word problem - "I do" (Sessions 1, 3 and 6 only) <br> Guided Practice - "We do" <br> Sessions 1 and 2: Add 2-digit numbers using base-ten blocks and place-value cards <br> Sessions 3, 4 and 5: Add 2-digit numbers using base-ten drawings and showing sub-totals <br> Sessions 6, 7 and 8: Add 2-digit numbers using place-value understanding and showing sub-totals |
| End (10 min.) | Bring the students back together. <br> Ask students to reflect on their progress towards the learning target <br> - What did I learn today about comparing numbers? <br> - How confident do you feel about comparing numbers on my own? <br> (Thumbs up, down, or sideways) <br> Assess each student's progress using the next Quick Check form <br> Guide students to self-correct their Quick Check <br> Guide students to chart their progress in their Growth Chart <br> - If not using Delta Math lessons, record the activity in the table <br> Collect each student's Quick Check and Growth Chart |
| After Session 6 | Differentiation Options: <br> - Allow students who met the learning goal to work independently while others do the guided practice during the next session <br> - Exit students who met the learning goal for a third time <br> Problem solve with a team to plan additional support for students who do not meet the learning goal within 8 sessions |

## Session 1: Modeling (I Do)

Learning Target: I will add 2-digit numbers
Readiness for adding 3-digit numbers

Genevieve and Caroline collected sea shells at the beach. Genevieve collected 35 sea shells and Caroline collected 27 sea shells. How many sea shells did they collect altogether?

Learning Target: I will add 2-digit numbers

Readiness for adding 3-digit numbers

Genevieve and Caroline collected sea shells at the beach. Genevieve collected 35 sea shells and Caroline collected 27 sea shells. How many sea shells did they collect altogether?

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 Genevieve and Caroline collecting sea shells at the beach.

Second, I need to determine what I need to find.
I need to find the total number of sea shells they collected together.

Third, I need to determine what I know.
I know that Genevieve collected 35 sea shells and Caroline collected 27 sea shells.

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 sea shells.

I will begin by representing Genevieve's 35 sea shells using 3 tens and 5 ones. (Build the number 35 with place-value blocks and cards.)

Next, I will represent Caroline's 27 sea shells using 2 tens and 7 ones. (Build the number 27 with base-ten blocks and place-value cards.)

Now, I have to add them together to find the total of the two parts. (Set the plus sign " + " to the left of the 27 . Then slide the tens down into one group and the ones down into another group.)
The total includes 5 tens...which equals 50 ... and 12 ones...which equals 1 ten and 2 ones. (Set the 50, 10 and 2 cards underneath the blocks.) The 6 tens can be combined to make 60. (Set the 60 card underneath)

And, the $\mathbf{2}$ more ones makes 62 (set the 2 card to show 62).

Last, I need to make sure that my answer makes sense.
I found that Genevieve and Caroline collected a total of 62 sea shells at the beach. It makes sense because I built each number of shells with base-ten blocks and combined them to see a total of 6 tens and 2 extra ones.

Place-Value Cards ( $1 \rightarrow$ 100)


Name $\qquad$

Learning Target: I will add 2-digit numbers

## Session 1: 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 and write the answer if you know it.
> Use base-ten blocks and place-value cards to add the numbers or check your work.

| 1. | $27+45$ | $15+62$ |  |
| :--- | :--- | :--- | :--- |
| 3. | $83+39$ | 4. | $45+71$ |

You Do Together: (As a class, or in small groups)
Students take turns leading and repeat the steps to add 2-digit numbers.

| 5. | $53+28$ | $66+49$ |  |
| :--- | :--- | :--- | :--- |
| 7. | $67+25$ | 8. | $85+52$ |
| 9. | $74+68$ | 10. | $36+67$ |

## Session 1: Self-Reflection

Learning Target: I will add 2-digit numbers

Briefly discuss student responses

What did I learn today about adding 2-digit numbers?

How confident do I feel about adding 2-digit numbers on my own?
(Thumbs up, down, or sideways)

## Quick Check - Form A

Name $\qquad$ Date $\qquad$

Learning Target: I will add 2-digit numbers.
Directions: Write the answer to each problem. (Work time: 3 minutes)


## Growth Chart

Name
Date

Learning Target: I will add 2-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: |  |  |

M $\triangle$ TH
Name $\qquad$

Learning Target: I will add 2-digit numbers

## Session 2: Guided Practice (We Do)

Materials:
> Base-Ten Blocks ( 20 tens and 20 ones)
> Place-value Cards (2 sets - See Session 1)

We Do Together: (Teacher Actions)
> Say the addition problem and write the answer if you know it.
> Use base-ten blocks and place-value cards to add the numbers or check your work.

| 1. | $28+45$ | $19+62$ |  |
| :--- | :--- | :--- | :--- |
| 3. | $84+39$ | 4. | $46+71$ |

You Do Together: (As a class, or in small groups)
Students take turns leading and repeat the steps to add 2-digit numbers.

| 5. | $67+28$ |  |  |
| :--- | :--- | :--- | :--- |
| 7. | $67+36$ | 8. | $85+49$ |
| 9. | $86+67$ | 10. | $37+58$ |

## Session 2: Self-Reflection

Learning Target: I will add 2-digit numbers

Briefly discuss student responses

What did I learn today about adding 2-digit numbers?

How confident do I feel about adding 2-digit numbers on my own?
(Thumbs up, down, or sideways)
$\qquad$

Learning Target: I will add 2-digit numbers.
Directions: Write the answer to each problem. (Work time: 3 minutes)
 Session 3: Modeling (I Do)

Kristin and Christopher were partners in a push-up competition. Kristin did 47 push-ups in a row and Christopher did 39 push-ups in a row. How many total push-ups in a row did they complete as a team?

Learning Target: I will add 2-digit numbers
Kristin and Christopher were partners in a push-up competition. Kristin did 47 push-ups in a row and Christopher did 39 push-ups in a row. How many total push-ups in a row did they complete as a team?

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 Kristin and Christopher competing in a push-up competition.
Second, I need to determine what I need to find.
I need to find how many push-ups in a row they completed as a team.

Third, I need to determine what I know.
I know that Kristin did 47 push-ups and Christopher did 39 push-ups.
Fourth, I need to figure out what I can try.
I am going to try making base-ten drawings to help me find the total number of push-ups.
I will begin by writing and drawing what I know...Kristin did 47 push-ups that can be drawn as 4 tens and 7 ones. (Write, label and draw Kristin's 47 push-ups.)

And, Christopher did 39 push-ups that can be drawn with 3 tens and 9 ones.
(Write, label and draw Christopher's 39 push-ups.)
Since I need to find the total, I will write a plus sign and a line underneath the 39 . (Write the + sign and line.)
To find the total number of ones, I will make a ten to help me count. 9 and 1 makes 10 . (Circle and label 10 ones.)
I see 6 more ones for a total of $\mathbf{1 6}$ ones. (Point to the group of 10 and 6 more ones)
I will write the $\mathbf{1 6}$ ones as $\mathbf{1}$ ten and $\mathbf{6}$ ones. (Write 16 under the original problem as the first sub-total.)
Next, I need to find the total number of tens...I see 4 tens and $\mathbf{3}$ tens...(point to the tens)...there are $\mathbf{7}$ tens total. 7 tens is equal to 70 ...which I will write as $\mathbf{7}$ tens and $\mathbf{0}$ ones. (Write 70 underneath the 16 as the $2^{\text {nd }}$ sub-total.) Last, I need to combine the totals of ones and tens.
(Point to the 16 and 70)
6 ones plus $\mathbf{0}$ ones (Point to the digits 6 and 0 ) is equal to 6 ones.
(Write the 6 in the one's place of the answer.)
And, $\mathbf{1}$ ten plus $\mathbf{7}$ tens (Point to the digits 1 and 7 ) is equal to 8 tens., (Write the 6 in the one's place of the answer.)

Push-ups



8 tens and 6 ones (Point to the digits 8 and 6) is equal to 86.

Last, I need to make sure that my answer makes sense.
I found that Kristin and Christopher did a total of 86 push-ups in a row. It makes sense because I made a math drawing of each number of push-ups and combined them to see a total of 8 tens and 6 extra ones.

Name $\qquad$

Learning Target: I will add 2-digit numbers

## Session 3: Guided Practice (We Do)

We Do Together: (Teacher Actions)
> Say the addition problem and write the answer if you know it.
> Use base-ten drawings and show sub-totals to add the numbers or check your work.
1.

39
$+54$
2.

$$
\begin{array}{r}
53 \\
+\quad 28 \\
\hline
\end{array}
$$

3. 

45
$+79$

Name

Learning Target: I will add 2-digit numbers

## Session 3: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)
> Students take turns leading to add 2-digit numbers.
4.

$$
\begin{array}{r}
54 \\
+\quad 27 \\
\hline
\end{array}
$$

5. 

36
$+47$
6.

$$
\begin{array}{r}
74 \\
+\quad 58 \\
\hline
\end{array}
$$

Name $\qquad$
$\qquad$
Learning Target: I will add 2-digit numbers

## Session 3: Guided Practice (We Do - Teacher Notes)

We Do Together: (Teacher Actions)
> Say the addition problem and write the answer if you know it.
> Use base-ten drawings and show sub-totals to add the numbers or check your work.

| 1. $\begin{array}{r} 39 \\ +54 \\ \hline 13 \\ 80 \\ \hline 93 \end{array}$ |  |
| :---: | :---: |
| 2. $\begin{array}{r} 53 \\ +28 \\ \hline 11 \\ 70 \\ \hline 81 \end{array}$ |  |
| 3. $\begin{array}{r} 45 \\ +79 \\ \hline 14 \\ 110 \\ \hline 124 \end{array}$ |  |

## Session 3: Self-Reflection

Learning Target: I will add 2-digit numbers

Briefly discuss student responses

What did I learn today about adding 2-digit numbers?

How confident do I feel about adding 2-digit numbers on my own?
(Thumbs up, down, or sideways)

Name
Date $\qquad$

Learning Target: I will add 2-digit numbers.
Directions: Write the answer to each problem. (Work time: 3 minutes)


Name $\qquad$

Learning Target: I will add 2-digit numbers

## Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)
> Say the addition problem and write the answer if you know it.
> Use base-ten drawings and show sub-totals to add the numbers or check your work.
1.

29
$+65$
2.

$$
\begin{array}{r}
43 \\
+\quad 39 \\
\hline
\end{array}
$$

3. 

$$
\begin{array}{r}
56 \\
+\quad 68 \\
\hline
\end{array}
$$

Name

Learning Target: I will add 2-digit numbers

## Session 4: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)
$>$ Students take turns leading to add 2-digit numbers.
4.

65
$+29$
5.

$$
\begin{array}{r}
48 \\
+\quad 37 \\
\hline
\end{array}
$$

6. 

84
$+49$

## Session 4: Self-Reflection

Learning Target: I will add 2-digit numbers

Briefly discuss student responses

What did I learn today about adding 2-digit numbers?

How confident do I feel about adding 2-digit numbers on my own?
(Thumbs up, down, or sideways)
$\qquad$

Learning Target: I will add 2-digit numbers.

Directions: Write the answer to each problem. (Work time: 3 minutes)


Name $\qquad$

Learning Target: I will add 2-digit numbers

## Session 5: Guided Practice (We Do)

We Do Together: (Teacher Actions)
> Say the addition problem and write the answer if you know it.
> Use base-ten drawings and show sub-totals to add the numbers or check your work.
1.

$$
\begin{array}{r}
48 \\
+\quad 54 \\
\hline
\end{array}
$$

2. 

$$
\begin{array}{r}
65 \\
+\quad 27 \\
\hline
\end{array}
$$

3. 

39
$+76$

Name

Learning Target: I will add 2-digit numbers

## Session 5: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)
> Students take turns leading to add 2-digit numbers.
4.

$$
\begin{array}{r}
48 \\
+\quad 37 \\
\hline
\end{array}
$$

5. 

$$
\begin{array}{r}
29 \\
+\quad 57 \\
\hline
\end{array}
$$

6. 

64
$+57$

## Session 5: Self-Reflection

Learning Target: I will add 2-digit numbers

Briefly discuss student responses

What did I learn today about adding 2-digit numbers?

How confident do I feel about adding 2-digit numbers on my own?
(Thumbs up, down, or sideways)
$\qquad$

Learning Target: I will add 2-digit numbers.
Directions: Write the answer to each problem. (Work time: 3 minutes)


## Session 6: Modeling (I Do)

Delta Elementary School had a walkathon fundraiser. The $3^{\text {rd }}$ grade class walked a total of 46 miles and the $4^{\text {th }}$ grade class walked a total of 39 miles. How many miles did the two classes walk altogether?

Learning Target: I will add 2-digit numbers
Readiness for adding 3-digit numbers

Delta Elementary School had a walkathon fundraiser. The $3^{\text {rd }}$ grade class walked a total of 46 miles and the $4^{\text {th }}$ grade class walked a total of 39 miles. How many miles did the two classes walk altogether?

First, it is important to know what the problem is about.
This problem is about Delta Elementary School's walkathon fundraiser.

Second, I need to determine what I need to find.
I need to find how many miles the two classes walked altogether.

Third, I need to determine what I know.
I know that the $3^{\text {rd }}$ grade class walked a total of 46 miles and the $4^{\text {th }}$ grade class walked a total of 39 miles.

Fourth, I need to figure out what I can try.
This time, I am going to try using my understanding of place value to help me find the total number of miles.
Since I need to find a total, I will begin by writing an addition problem using the information that I know... the $3^{\text {rd }}$ grade class walked 46 miles and the $4^{\text {th }}$ grade class walked 39 miles.
(Write and label the known information.)
To find the total number of ones (Point to the 6 and 9) I will add 6 ones and 9 ones.
This equals 15 ones and I will write it as 1 ten and 5 ones. (Write the digits 1 and 5 in the ones sub-total.)
Next, I need to find the total number of tens...(Point to the digits 4 and 3)
4 tens and 3 tens is 7 tens...which I will write as 7 tens and 0 ones.
(Write the digits 7 and 0 in the tens sub-total.)
Last, I need to combine the totals of the ones and tens.
(Point to the 15 and 70)
5 ones plus 0 ones (Point to the 5 and 0 ) is equal to 5 ones.

(Write a 5 in the one's place of the answer.)
1 ten plus 7 tens (Point to the digits 1 and 7) is equal to 8 tens.
(Write an 8 in the tens place of the answer.)
85 miles

Last, I need to make sure that my answer makes sense.
I found that the $3^{\text {rd }}$ and $4^{\text {th }}$ grade classes walked a total of 85 miles for the fundraiser. It makes sense because I found the total by combining the sub-totals of 15 ones and 7 tens.

Now that we found the answer, I would like to show you how number bonds can help adding the ones digits if that still seems difficult to do in your head. I would draw two bonds attached to the smaller number to help me make ten and some more. The first part of the smaller number needs to make 10 with the larger number... 9 plus 1 makes 10 . The second part of the smaller number must be 5 ... and $10+5$ is 15 .

This extra step could help me add the ones until it eventually gets easier in my head with more practice.

Name $\qquad$

Learning Target: I will add 2-digit numbers

## Session 6: Guided Practice (We Do)

We Do Together: (Teacher Actions)
> Say the addition problem and write the answer if you know it.
> Use sub-totals to add the numbers or check your work.

| 1. $\begin{array}{r} 27 \\ +\quad 56 \\ \hline \end{array}$ | 2. $\begin{array}{r} 74 \\ +\quad 29 \\ \hline \end{array}$ |
| :---: | :---: |
| 3. | 4. |
| 68 | 36 |
| +45 | +74 |

Name
Date

Learning Target: I will add 2-digit numbers

## Session 6: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)
$>$ Students take turns leading to add 2-digit numbers.

| 5. $\begin{array}{r} 35 \\ +58 \\ \hline \end{array}$ | 6. $\begin{array}{r} 84 \\ +\quad 52 \\ \hline \end{array}$ |
| :---: | :---: |
| 7. $\begin{array}{r} 63 \\ +\quad 29 \\ \hline \end{array}$ | 8. $\begin{array}{r} 46 \\ +86 \\ \hline \end{array}$ |
| 9. $\begin{array}{r} 18 \\ +\quad 57 \\ \hline \end{array}$ | 10. $\begin{array}{r} 58 \\ +\quad 59 \\ \hline \end{array}$ |

## Session 6: Self-Reflection

Learning Target: I will add 2-digit numbers

Briefly discuss student responses

What did I learn today about adding 2-digit numbers?

How confident do I feel about adding 2-digit numbers on my own?
(Thumbs up, down, or sideways)
$\qquad$

Learning Target: I will add 2-digit numbers.
Directions: Write the answer to each problem. (Work time: 3 minutes)


Name $\qquad$

Learning Target: I will add 2-digit numbers

## Session 7: Guided Practice (We Do)

We Do Together: (Teacher Actions)
> Say the addition problem and write the answer if you know it.
> Use sub-totals to add the numbers or check your work.

| 1. $\begin{array}{r} 28 \\ +\quad 65 \\ \hline \end{array}$ | 2. $\begin{array}{r} 76 \\ +\quad 38 \\ \hline \end{array}$ |
| :---: | :---: |
| 3. | 4. |
| $\begin{array}{r} 63 \\ +\quad 49 \\ \hline \end{array}$ | $\begin{array}{r} 37 \\ +\quad 86 \\ \hline \end{array}$ |

M $\triangle$ TH
Name

Learning Target: I will add 2-digit numbers

## Session 7: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)
$>$ Students take turns leading to add 2-digit numbers.


## Session 7: Self-Reflection

Learning Target: I will add 2-digit numbers

Briefly discuss student responses

What did I learn today about adding 2-digit numbers?

How confident do I feel about adding 2-digit numbers on my own?
(Thumbs up, down, or sideways)

## Quick Check - Form G

Name $\qquad$ Date $\qquad$

Learning Target: I will add 2-digit numbers.

Directions: Write the answer to each problem. (Work time: 3 minutes)


Name $\qquad$

Learning Target: I will add 2-digit numbers

## Session 8: Guided Practice (We Do)

We Do Together: (Teacher Actions)
> Say the addition problem and write the answer if you know it.
> Use sub-totals to add the numbers or check your work.

| 1. $\begin{array}{r} 37 \\ +\quad 58 \\ \hline \end{array}$ | 2. $\begin{array}{r} 85 \\ +\quad 19 \\ \hline \end{array}$ |
| :---: | :---: |
| 3. | 4. |
| 76 | 46 |
| +36 | + 78 |

M $\triangle$ TH
Name

Learning Target: I will add 2-digit numbers

## Session 8: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)
$>$ Students take turns leading to add 2-digit numbers.

| 5. $\begin{array}{r} 35 \\ +\quad 59 \\ \hline \end{array}$ | 6. $\begin{array}{r} 86 \\ +\quad 52 \\ \hline \end{array}$ |
| :---: | :---: |
| 7. $\begin{array}{r} 63 \\ +\quad 28 \\ \hline \end{array}$ | 8. $\begin{array}{r} 47 \\ +\quad 87 \\ \hline \end{array}$ |
| 9. $\begin{array}{r} 18 \\ +56 \\ \hline \end{array}$ | 10. $\begin{array}{r} 58 \\ +\quad 48 \\ \hline \end{array}$ |

## Session 8: Self-Reflection

Learning Target: I will add 2-digit numbers

Briefly discuss student responses

What did I learn today about adding 2-digit numbers?

How confident do I feel about adding 2-digit numbers on my own?
(Thumbs up, down, or sideways)

## Quick Check - Form H

Name
Date $\qquad$

Learning Target: I will add 2-digit numbers.

Directions: Write the answer to each problem. (Work time: 3 minutes)


## Independent Practice

Learning Target: I will add 2-digit numbers
Title of Game: Build the Greater Sum
Number of Players: 2
Objective: To build two numbers with the greatest sum.
Materials: 1 set of digit-cards per player (numbers 0-9) and 1 recording sheet per player.

## Directions:

> Shuffle the digit cards and spread them out on the table face down.
> Players take turn choosing a digit card and placing it on the game mat.

- Once a digit card has been placed, it cannot be moved to another location.
$>$ After both 2-digit number addition problems have been created, each player writes their problem on the recording sheet and finds their sum.
> Each player shares their problem, the sub-totals and the sum.
"My addition problem is $\qquad$ $+$ $\qquad$ ."
"My sub-totals are $\qquad$ and $\qquad$ ."
"My sum is $\qquad$ ."
> The player with the greatest sum circles the problem on their recording sheet.
> Collect the digit-cards and repeat the steps to build a greater sum.
> The winner of the game is the player with the most problems circled.

Player 1


Player 2

$\mathrm{M} \triangle \mathrm{TH}$
Name $\qquad$
$\qquad$

Learning Target: I will add 2-digit numbers

## Independent Practice: Build the Greater Sum (Recording Sheet)



Digit Cards (3 sets)

| 0 | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 5 | 6 | 7 | 8 | 9 |
| 0 | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 |
| 0 | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 |

(Hicith 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? |
| $Q_{4}$ |  |
| $Q_{5}$ | What can I try? |
|  |  |

M $\triangle$ TH
Q. What is the problem about?
Q. What do I need to find?

Q3. What do I know?

Q4. What can I try?
$Q_{5 .}$ Does my answer make sense?

