

3rd Grade Tier 2 Intervention Lessons

Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for 2.NBT.5: Add and subtract 3-digit numbers

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IES Recommendations for Tier 2 and 3 intervention lessons:

 Instructional materials for students receiving interventions should focus intensely on in-depth treatment of whole numbers in kindergar- ten through grade 5 and on rational numbers in grades 4 through 8. These materials should be selected by committee. 	Low
 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
 Intervention materials should include opportunities for students to work with visual representations of mathematical ideas and interven- tionists 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

Focus Lesson

"I do it"

Guided Instruction

Collaborative "You do it together"

Independent "You do it alone"

Figure 1

(Dr. Douglas Fisher, Effective Use of the Gradual Release of Responsibility Model)



Planning Guide: Session 1

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for adding and subtracting 3-digit numbers

	Recommended Actions					
Beginning (15 min.)	Review the readiness standard with the intervention group using the Guided Review 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.)	 ➤ Ask students to reflect on their progress towards the learning target ➤ 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.)	 Assess each student's progress using Quick Check – Form A Guide students to self-correct their Quick Check – Form A Guide students to chart their progress by recording the date and Quick Check score in their Growth Chart Collect each student's Quick Check and Growth Chart 					
After	 Create sub-groups to differentiate the middle of sessions 2 through 8 Group 1 – Include students who <u>did not</u> meet the learning goal Group 2 – Include students who met or exceeded the learning goal 					



3rd Grade Fall Guided Review

Readiness Standard 2 - 2.NBT.8

Name				Date
Learning Target: I will mentally add and subtract 10 or 100 to a number.				
1. Add:		825 + 100		
○ 815	O 835	0	925	O 725
2. Subtract:		603 - 10		
O 703	O 683	\circ	593	O 793
3. Subtract:		719 – 100		
○ 619	O 819	0	709	O 729



3rd Grade Winter Guided Review

Readiness Standard 2 - 2.NBT.8

Name						Date
Learning Target: I will mentally add and subtract 10 or 100 to a number.						
1. Add:			731 + 100			
O 631	\circ	831		\circ	741	O 721
2. Subtract:			508 – 10			
O 608	\circ	408		\bigcirc	518	O 498
3. Subtract:			805 – 100			
O 705	0	905		0	795	O 815



Name

3rd Grade Spring Guided Review

Readiness Standard 2 - 2.NBT.8

Date

Learning Target: I will mentally add and subtract 10 or 100 to a number.					
1. Add:		836 + 100			
○ 736	0	936	\bigcirc	846	O 826
2. Subtract:		705 – 10			
○ 695	\circ	715	\bigcirc	605	O 805
3. Subtract:		628 - 100			
○ 728	\circ	528	\bigcirc	618	O 638



Session 1: Self-Reflection

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Briefly discuss student responses

- ➤ What did I remember today about adding and subtracting 10 or 100 to a number?
- ➤ What did I learn today about adding and subtracting 10 or 100 to a number?
- ➤ How confident do I feel about adding and subtracting 10 or 100 to a number on my own? (Thumbs up, down, or sideways)

Quick Check - Form A

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name_____ Date____

2.

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Directions: Write the answer to each problem. (Work time: 2 minutes)

1.

875 + 100 = ____

3. 4.

905 – 10 = ____

5. 6.

803 - 100 = ____



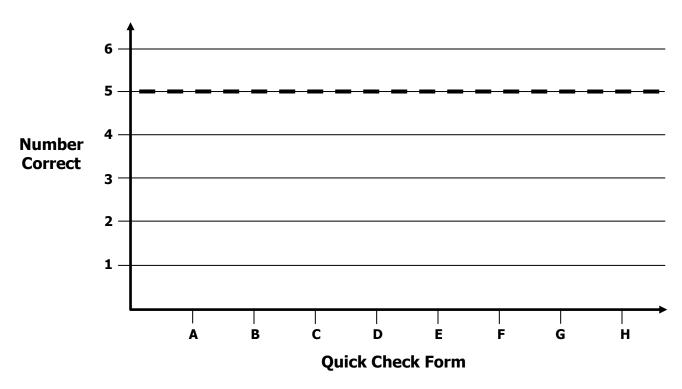
Growth Chart

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name	Date
INGILIC	Date

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Goal: 5 out of 6 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

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for adding and subtracting 3-digit numbers

	Recommended Actions							
Beginning (5 min.)	Review the learning target with the whole group and ask each student to set a goal.							
Middle (15 min.)	Group 1: (Students who did not meet the learning goal on the previous Quick Check) ➤ Model solving a word problem − "I do" ➤ Guided Practice − "We do together/ You do together"	Group 2: (Students who met the learning goal) ➤ Independent practice – "You do"						
	Session 2: Add and subtract 10 and 100 to a number using base-ten blocks Session 3: Add and subtract 10 and 100 to a number using base-ten drawings Session 4: Add and subtract 10 and 100 to a number using numbers and symbols	Activity 1: "Three-in-a-Row" (Look for additional activities in 2 nd grade core instruction resources.)						
End (10 min.)	 Bring the students back together. Ask students to reflect on their progress towards the learning target What did I learn today about counting? How confident do you feel about counting on my own?							
After	 Regroup students to differentiate the middle of sessions 3 through 8 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)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for adding and subtracting 3-digit numbers

Emily went with her class to pick apples at an orchard for her school's fall harvest party. A total of 358 apples were picked. On the way back to school, the class gave 100 apples to a local food bank. How many apples did the class keep for the school's fall harvest party?



Session 2: Modeling (I Do - Teacher Notes)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for adding and subtracting 3-digit numbers

Materials: Base-ten blocks (10 hundreds, 10 tens and 10 ones)

Emily went with her class to pick apples at an orchard for her school's fall harvest party. A total of 358 apples were picked. On the way back to school, the class gave 100 apples to a local food bank. How many apples did the class keep for the school's fall harvest party?

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.

This problem is about Emily's class picking apples for their school's fall harvest party.

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

I need to find the number of apples kept for the school party.

Third, I need to determine what I know.

I know that a total of 358 apples were picked and 100 apples were given to a local food bank.

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

I am going to try modeling the actions with base-ten blocks.

I will begin by building the original number of apples beginning with the hundreds...100, 200, 300. Next I will build the tens...10, 20, 30, 40, 50...and now the ones...1, 2, 3, 4, 5, 6, 7, 8.

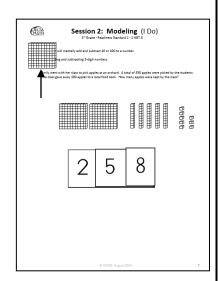
(Say each counting number while placing each tens piece on the paper.)

Now, I will model the 100 apples given away by moving a hundred piece away from the group.

(Move one tens piece on the paper.)

I can find the number of apples kept by the class by counting the number of hundreds, tens and ones left in the group. 2 hundreds...5 tens and 8 ones equals 258.

(Set the place-value cards "200", "50" and "8" under the base-ten blocks to represent the answer.)



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

I found that 258 apples were kept by Emily's class. It makes sense because I knew that her class picked a total of 358 apples and gave 100 away. And, I used place-value blocks and cards to model the problem.



Place-Value Cards (1 → 100)

	6	2	0	6	0
2	7	3	0	7	O
3	8		0	8	O
L	9	5	0	9	O
5		0		0	O
Less Than	SGreater Than	E qual to	+ -	- X	·



Place-Value Cards (200 → 900)

2	0	0	3	0	0
L	0	O	5	0	O
6	0	O	7	0	0
8	0	0	9	0	0

Session 2: Guided Practice (We Do)

Materials: Base-Ten Blocks (10 hundreds, 10 tens and 10 ones per student, or pair of students) and Place-Value Cards (See Session 1)

We Do Together: (Teacher Actions)

- > Use base-ten blocks and place-value cards to add and subtract 10 or 100 to a number.
 - o 1 hundred more than 9 hundreds is 10 hundreds or 1000. So, 100 more than 947 is 1047.
 - o 1 hundred less than 4 hundreds is 3 hundreds. So, 100 less than 462 is 362.

Supporting Math Talk:

- ▶ 1 hundred more than 9 hundreds is 10 hundreds or 1000. So, 100 more than 947 is 1047.
- > Since I don't have any tens, I need to ungroup 1 hundred as 10 tens...so, 10 less than 508 is 498.

1.	947 + IOO =	2.	508 - IO =
3.	1100 . 10	4.	201 100
	492 + 10 =		391 - 100 =

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

> Students take turns leading to add and subtract 10 or 100 to a number.

5.	594 + 10 =	6. 385 - IOO =
7.	728 + 10 =	8. 498 - 100 =
9.	916 + 100 =	10. 203 - IO =



Session 2: Self-Reflection

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Briefly discuss student responses

➤ What did I learn today about adding and subtracting 10 or 100 to a number?

➤ How confident do I feel about adding and subtracting 10 or 100 to a number on my own?

(Thumbs up, down, or sideways)

Quick Check - Form B

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name_____ Date____

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Directions: Write the answer to each problem. (Work time: 2 minutes)

1. 2.

578 - 10 = ____

3. 4.

393 - 100 = ____

5.

308 + 100 = ____



Session 3: Modeling (I do)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for adding and subtracting 3-digit numbers

297 tickets were sold for today's football game during school. If 10 more tickets were sold after school, how many total tickets were sold?



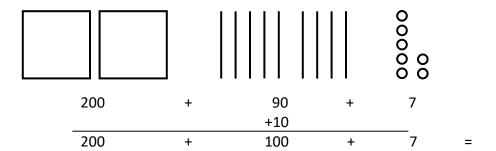
Session 3: Modeling (I do - Teacher Notes)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for adding and subtracting 3-digit numbers

297 tickets were sold for tonight's football game during school. If 10 more tickets were sold after school, how many total tickets were sold?



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.

This problem is about ticket sales for tonight's football game.

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

I need to find the total number of tickets sold for tonight's football game.

Third, I need to determine what I know.

I know that 297 tickets were sold during school and 10 more tickets were sold after school.

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

I am going to try modeling the actions with math drawings.

I will begin by building the number of tickets sold during school beginning with the hundreds...100 and 200. Next, I will build the tens...10, 20, 30, 40, 50, 60, 70, 80, 90...and now the ones...1, 2, 3, 4, 5, 6, 7.

(Say each counting number while drawing it.)

Since there were 10 more tickets sold after school, I need to add another ten to the number, 297.

(Place 10 tens on the paper in place of a hundred.)

Now, I will find the totals of each place-value...2 hundreds is equal to 200, 10 tens is equal to another hundred and 7 ones is equal to 7. This gives us a total of 300 and 7 more, which is equal to 307.

(Write the place-value totals, the expanded form of the number and then the standard form.)

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

I found that 307 total tickets were sold for tonight's football game. It makes sense because I knew that 297 tickets were sold during school and 10 more tickets were after school. And, I used a place-value drawing to model the situation and expanded notation to help find the answer.

307

Session 3: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the addition or subtraction statement and write the answer if you know it.
- > Use a drawing to check your answer or to find the answer.

Session 3: Guided Practice (We Do - Continued)

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

> Students take turns leading to add and subtract 10 or 100 to a number.



Session 3: Self-Reflection

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Briefly discuss student responses

➤ What did I learn today about adding and subtracting 10 or 100 to a number?

➤ How confident do I feel about adding and subtracting 10 or 100 to a number on my own?

(Thumbs up, down, or sideways)

Quick Check - Form C

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name	Date

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Directions: Write the answer to each problem. (Work time: 2 minutes)

4.

6.

803 - 10 = ____



Session 4: Modeling (I Do)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for adding and subtracting 3-digit numbers

Mrs. D. was practicing mental addition and subtraction with her students. She asked them to use their place-value understanding to mentally subtract 10 from 408. What is the answer and explain how her students might have found it?



Session 4: Modeling (I Do - Teacher Notes)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Readiness for adding and subtracting 3-digit numbers

Mrs. D. was practicing mental addition and subtraction with her students. She asked them to use their place-value understanding to mentally subtract 10 from 408. Why might this problem be difficult to do mentally and what is the answer?

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.

This problem is about Mrs. D. practicing mental addition and subtraction with her students.

Since I need to subtract 10, I can think about 408 differently...as 40 tens and 8 ones.

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

I need to find out why 408 – 10 might be hard to do mentally and then find the answer to the problem.

Third, I need to determine what I know.

I know that 408 is equal to 4 hundreds, zero tens and 8 ones and it may be difficult because there does not seem to be any tens to subtract from.

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

(Write 408 – 10 vertically)

408 <u>−10</u>

40 tens

398

(Circle the digits 40)

(Write a 3 in the hundred's place and a 9 in the ten's place.)

Therefore, 408 – 10 is equal to 398.

40 tens minus 1 ten is equal to 39 tens

(Write the in the ones place.)

Since 400 – 10 is 390, then 408 – 10 is 398.

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

I found that 408 – 10 is 398. It makes sense because I knew I could use my place-value understanding to think of the number in terms of tens and ones and that allowed me to subtract ten much easier.



Name	Date

Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the addition or subtraction statement and write the answer if you know it.
- > Check your answer or find the answer by rewriting the problem vertically and identifying the place value digit(s) that will be added to or subtracted from.

2.

4.

Session 4: Guided Practice (We Do - Continued)

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

> Students take turns leading to add and subtract 10 or 100 to a number.



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

We Do Together: (Teacher Actions)

- > Say the addition or subtraction statement and write the answer if you know it.
- > Check your answer or find the answer by rewriting the problem vertically and identifying the place value digit(s) that will be added to or subtracted from.

1. 9 hundreds

9 hundreds plus 1 hundred is 10 hundreds... and 74 more is 1074 **2.** 60 Tens

60 tens minus 1 ten is 59 tens... and 8 ones is 598

3. 39 Tens

39 tens plus 1 ten is 40 tens... and 2 ones is 402 4. 3 hundreds

3 hundreds minus 1 hundred is 2 hundreds... and 91 more is 291



Session 4: Self-Reflection

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Briefly discuss student responses

➤ What did I learn today about adding and subtracting 10 or 100 to a number?

➤ How confident do I feel about adding and subtracting 10 or 100 to a number on my own?

(Thumbs up, down, or sideways)

Quick Check - Form D

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name	Date

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Directions: Write the answer to each problem. (Work time: 2 minutes)

4.

6.

497 + 10 = ____

Session 5: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the addition or subtraction statement and write the answer if you know it.
- Use a drawing to check your answer or to find the answer.

3.

Session 5: Guided Practice (We Do - Continued)

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

> Students take turns leading to add and subtract 10 or 100 to a number.

5.

6.

7.

8.

9.

10.



Session 5: Self-Reflection

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Briefly discuss student responses

➤ What did I learn today about adding and subtracting 10 or 100 to a number?

➤ How confident do I feel about adding and subtracting 10 or 100 to a number on my own?

(Thumbs up, down, or sideways)

Quick Check - Form E

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name	Date
------	------

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Directions: Write the answer to each problem. (Work time: 2 minutes)

4.

6.

Session 6: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the addition or subtraction statement and write the answer if you know it.
- Use a drawing to check your answer or to find the answer.

Session 6: Guided Practice (We Do - Continued)

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

> Students take turns leading to add and subtract 10 or 100 to a number.



Session 6: Self-Reflection

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Briefly discuss student responses

➤ What did I learn today about adding and subtracting 10 or 100 to a number?

➤ How confident do I feel about adding and subtracting 10 or 100 to a number on my own? (Thumbs up, down, or sideways)

Quick Check - Form F

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name_____ Date____

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Directions: Write the answer to each problem. (Work time: 2 minutes)

1. 2.

578 – 10 = ____

3. 4.

393 – 100 = ____

5. 6.

308 + 100 = ____



Session 7: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the addition or subtraction statement and write the answer if you know it.
- > Check your answer or find the answer by rewriting the problem vertically and identifying the place value digit(s) that will be added to or subtracted from.

2.

4.

Session 7: Guided Practice (We Do - Continued)

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

> Students take turns leading to add and subtract 10 or 100 to a number.



Session 7: Self-Reflection

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Briefly discuss student responses

➤ What did I learn today about adding and subtracting 10 or 100 to a number?

➤ How confident do I feel about adding and subtracting 10 or 100 to a number on my own?

(Thumbs up, down, or sideways)

Quick Check - Form G

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name_____ Date____

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Directions: Write the answer to each problem. (Work time: 2 minutes)

1.

2.

3. 4.

5. 6.

Session 8: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Say the addition or subtraction statement and write the answer if you know it.
- > Check your answer or find the answer by rewriting the problem vertically and identifying the place value digit(s) that will be added to or subtracted from.

2.

4.

Session 8: Guided Practice (We Do - Continued)

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

> Students take turns leading to add and subtract 10 or 100 to a number.

5.

6.

7.

8.

9.

10.



Session 8: Self-Reflection

3rd Grade - Readiness Standard 2 - 2.NBT.8

Learning Target: I will mentally add and subtract 10 or 100 to a number

Briefly discuss student responses

➤ What did I learn today about adding and subtracting 10 or 100 to a number?

➤ How confident do I feel about adding and subtracting 10 or 100 to a number on my own?

(Thumbs up, down, or sideways)

Quick Check - Form H

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name	Date

Learning Target: I will mentally add and subtract 10 or 100 to a number.

Directions: Write the answer to each problem. (Work time: 2 minutes)



Independent Practice (You Do)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Name	Date

Learning Target: I will mentally add and subtract 10 or 100 to a number

Title of Game: "Three-in-a-row"

Number of Players: 2 or more

Objective: To be the player with the most cards at the end of the game.

Materials:

> 1 set of add and subtract 10 or 100 problem cards (Set A or B)

➤ 1 Three-in-a-row mat per student

> 9 counters per student

Directions:

- A student volunteer shows a "problem" card to the students.
- > The players say the problem in unison (without the answer) and looks for the answer on their game board.
- ➤ If the answer is on their game board, the player covers it with a counter.
- > Repeat until a player covers three-in-a-row and then verify their answers with the used set of problem cards.

Math Talk:

*"*307 – 10...

Since 30 tens minus 1 ten is 29 tens

So, 307 - 10 is 297"



Three-in-a-Row Mat

3rd Grade - Readiness Standard 2 - 2.NBT.8

Player Directions:

- Write 9 of the 10 answers to the "Three-in-a Row" cards in the boxes below...1 answer per box.
 - o Set A: 503, 806, 1062, 1038, 796, 499, 502, 853, 317, 782
 - o Set B: 307, 608, 1074, 1026, 694, 398, 502, 483, 418, 685
- After the student volunteer shows the problem card, say the problem (without the answer) out loud.
- Find the answer and cover it on your game board below.
 - o (Remember, one of the answers is not on your game board.)
- > The winner is the first student to cover three-in-a-row and check their answers with the group.

Three-in-a-Row: Problem Cards (Set A)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Set A

Cot A

Set A

Three-in-a-Row: Problem Cards (Set B)

3rd Grade - Readiness Standard 2 - 2.NBT.8

Set B

Sot B

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

Q ₁ . What is the problem about?	
Q ₂ . What do I need to find?	
Q ₃ . What do I know?	
Q4. What can I try?	
Q₅. Does my answer make sense?	
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