

Grade 2	Lesson: 9-7 Using Addition to Check Subtraction	Reference to English
Math Standard(s): 2.NBT.5 (also 2.NBT.9)		Domain: Number and Operations in Base Ten
Content Objective(s):	Language Objective(s):	
Students will relate addition to subtraction by using one operation to check the other. <i>I can use addition to check my subtraction.</i>	Students will say the order they solve problems. <i>I can say the order I use to solve problems.</i>	
Essential Understanding: The inverse relationship between addition and subtraction can be used to check subtraction.	Required Academic Vocabulary for Word Wall: Listen: Read: Write: Speak: Sentence Frame:	
Materials: • Whiteboards, erasers and markers. • Subtracting on a Number Line (page 275) • Guided Practice (page 276)	Additional Lesson Vocabulary:	
Lesson:		Instructional Time: 30 – 35 minutes
<p>Opening: (3 minutes)</p> <ul style="list-style-type: none"> Pass out whiteboards, markers and erasers. <p>T: “You have learned how to add and subtract numbers. Today, you are going to learn how to use addition to check subtraction.”</p> <p>T: “You already know how addition and subtraction are related. I will write some addition problems on the board and I want you to write the subtraction problems that go with them.”</p> <ul style="list-style-type: none"> Teacher will write <ul style="list-style-type: none"> $1 + 2 = 3, 3 - 2 = 1$ $8 + 4 = 12$ $5 + 13 = 18$ <p><i>S: will write the subtraction problem that goes with the addition problems.</i></p> <p>Introduction to New Material (Direct Instruction): (5 minutes)</p> <ul style="list-style-type: none"> Write 50 -20 on the board in a vertical format. <p>T: “Please solve 50 – 20 on your boards.”</p> <p><i>S: will solve 50 – 20 on their boards.</i></p> <p>T: “Please show me your boards so I can check your work.”</p> <p><i>S: will show the teacher their boards.</i></p> <p>T: “How can you check if your answer is correct?”</p> <p><i>S: will respond.</i></p> <p>T: “To check your work, you can use addition. Let me show you how.”</p> <p>T: “Up on the board I have written $50 - 20 = 30$. Now to check my work I will take the answer – 30 and write it on the top of an addition problem. I will also move the 20 over.”</p> <ul style="list-style-type: none"> Teacher will write $30 + 20$ on the board with arrows from those numbers in the subtraction problem. (you can reference teacher guided for help) <p>T: “What is 30 plus 20?”</p> <p><i>S: will respond, “$30 + 20 = 50$.”</i></p> <p>T: “The sum is 50, is that the same number as the number that we subtracted from in the first problem? Thumbs up or down.”</p> <p><i>S: will show thumbs up.</i></p> <p>T: “That means you subtracted correctly. You used the same numbers in the both equations!”</p> <p>Guided Practice: (10 minutes) <i>Use the modeling cycle:</i> Teacher Does:</p> <p>T: “I will write 2 more problems on the board. I want you and partner to teach each other how to check your subtraction problems using addition.”</p> <p>1 Students Does with Teacher:</p> <p>T: “I need someone to come up and help me.”</p>		

- Teacher will choose a student.

T: "I have written a problem on the board. $54 - 19 = \underline{\quad}$. I need you to teach me how to subtract it and then check it."

S: will teach the teacher how to subtract the problem and then check it.

- *First you subtract the ones. 4 minus 9. You can't. You must regroup. Take one of the tens. 14 minus 9 equals 5.*
- *Student will write it.*
- *Second, you subtract the tens. 4 minus 1 equals 3.*
- *Student will write it.*
- *54 minus 19 equals 35.*

T: "Good job, you taught me very well how to subtract those numbers, now will you please teach me how to check it?"

S: will teach the teacher how to check the problem.

- *First you move the answer.*
- *Student will write 35 at the top of the addition equation.*
- *Second, you move 19.*
- *Student will write 19 under 35.*
- *Third, you add the ones. 5 plus 9 equals 14. I will write a 4 here and a 1 here."*
- *Student will write it.*
- *Then you add the tens. 1 plus 3 plus 1 equals 5.*
- *Student will write it.*

T: "Perfect, 35 plus 19 equals 54. Are all the numbers the same in both equations?"

S: will check the number and say, "yes all the numbers are the same."

T: "Great! That means you did it right!"

All Students Do:

T: "Now I want you to take turns with your partner and teach them how to check your answer. Each of you will teach 1 problem. I will call out your groups. You need to collect your paper and get started. You will have 4 minutes."

- Teacher will separate the students into pairs.

S: will collect their papers and get started.

- Teacher will walk around the room helping the students.

T: "10,9,8,7,6,5,4,3,2,1. Time is up. Turn in your papers and sit on the carpet."

S: will turn in their papers and sit on the carpet.

Independent Practice: (7 minutes)

T: "Now it is your turn to do it on your own. I will pass out your papers. You will go to your desks and we will do the first problem together. You will do the other 3 problems on your own."

- Teacher will pass out the guided practice papers.

S: will collect their paper and return to their desks.

T: "The first problem is 32 minus 13. Where do we start?"

S: will respond, "start with the ones."

T: "Can we subtract 2 minus 3?"

S: will respond, "we need to regroup."

T: "We regrouped. What is 12 minus 3? Write it on your paper."

S: will write 9 and say "9."

T: "12 minus 3 is 9. Now what do we do?"

S: will respond, "we subtract the tens."

T: "What is 2 minus 1? Write it on your paper."

S: will write 1.

T: "Read the subtraction sentence to your neighbor."

S: will read, "32 minus 13 equals 19" to their neighbor.

T: "Good, now we need to check it. What do we do first?"

S: will respond, "write 19 minus 13."

T: "Yes, write 19 - 13. Good ahead."

S: will write 19 - 13 on their papers.

T: "We will start with the ones. Please write 9 plus 3."

S: will write 12.

T: "What do you do next?"

S: will respond, "add the tens."

T: "What is 1 plus 1 plus 1? Please write it."

S: will write 3.

T: "Check your numbers. Do both equations use the same numbers?"

S: will check the equations and say, "yes."

T: "Good job, now you need to finish the next three problems on your own. You will have 5 minutes."

S: will finish the next three problems on their guided practice page.

- Teacher will walk around the room helping students.

T: "10,9,8,7,6,5,4,3,2,1. Time is up. Please turn in your papers and come back to the carpet."

S: will turn in their papers and return to the carpet.

Closing: (5 minutes)

- Pass out whiteboards, erasers and markers.

T: "Please write the problems on your whiteboards as I read you the story problem."

T: "62 children paint pictures. (give students time to write 62) 48 children use red paint. (give students time to write 48) The rest use blue paint. How many children use blue paint?"

T: "You know there are 62 children and 48 of them use red paint, use your whiteboards to figure out how many use blue paint."

S: will write and solve $62 - 48$.

- Teacher will walk around the students checking their work and guided them as needed.

T: "Show me your boards."

S: will show the teacher their boards.

T: "You guys are awesome. You all wrote $62 - 48$. Then you subtracted. I will start with the ones, what is 2 take away 8?"

S: will respond, "you have to borrow."

T: "Oh, thanks, I will borrow, what is 12 take away 8?"

S: will respond, "4."

T: "You are right, I will write for in the ones place. Then what do I do?"

S: will respond, "subtract the tens."

T: "5 take away 4 equals 1. So 62 take away 48 equals 14. Now I need you to check your work by adding."

S: will check their work by adding.

- Teacher will walk around the room helping students as needed.

T: "Show me your boards."

S: will show the teacher their boards.

T: "Great! You all checked your work by adding. I see that you wrote 14 plus 48 on your boards. We will first add the ones. 4 plus 8 equals 2. Put the one above the tens places. Then I add the tens. 1 plus 1 plus 4 equals 6. 14 plus 48 equals 62. Are all the numbers in the two equations the same? Check you board and then show me thumbs up or thumbs down?"

S: will check their work and show thumbs up.

T: "Good job today!"

Assessment:

Guided Practice