

Grade 2	Lesson: 10-4 Changing Numbers by Hundreds and Tens	Reference to English
Math Standard(s): 2.NBT.8		Domain: Numbers and Operations in Base Ten
Content Objective(s):		Language Objective(s):
<p>Students will add and subtract multiples of 10 or 100 to and from a three-digit number without regrouping. <i>I can add and subtract 10 and 100 from three-digit numbers.</i></p>		<p>Students will tell their neighbor what ten more/less or 100 more/less is. <i>I can tell my neighbor ten more/less and 100 more/less.</i></p>
<p>Essential Understanding: Adding or subtracting hundreds or tens is similar to adding or subtracting single-digit numbers.</p>		<p>Required Academic Vocabulary for Word Wall: Listen: Read: Write: Speak: Sentence Frame: ____ less is ____ (100 less is ____) ____ more is ____ (10 more is ____)</p>
<p>Materials:</p> <ul style="list-style-type: none"> Number Cubes (or Teaching Tools 30) Place-Value blocks (or teaching tool 17) Whiteboards, Markers, Erasers Changing numbers by hundreds and tens (page 309) Guided Practice (page 310) Independent Practice (311) 		<p>Additional Lesson Vocabulary:</p>
Lesson:		Instructional Time: 30 minutes
<p>Opening: (4 minutes) –</p> <ul style="list-style-type: none"> Write 395 on the board. Use document cam to show the page numbers of the pages used in math. Students will start on the carpet. Pass out whiteboards, erasers and markers. <p>T: “You have learned how to read and write three-digit numbers in different ways. Let’s practice. Look at the number on the board. Please write it in expanded form.” S: <i>will write 395 in expanded form.</i> T: “Show me your boards.”</p> <ul style="list-style-type: none"> Teacher will check the boards to make sure they were written correctly. <p>T: “You all wrote it correctly, like this, $300 + 90 + 5 = 395$. (Write it on the board) T: “Please write the word form for 395.” S: <i>will write the three hundred ninety five on their boards.</i> T: “Show me your boards.”</p> <ul style="list-style-type: none"> Teacher will check the boards to make sure they wrote the word form correctly. <p>T: “Good job, you all wrote three hundred ninety five (write it on the board) on your board.” T: “Today, you will learn how to add and subtract tens and hundreds to and from three-digit numbers.”</p> <p>Introduction to New Material (Direct Instruction): (8 minutes)</p> <ul style="list-style-type: none"> Pass out whiteboards, erasers and markers. <p>T: “Let me ask you a question. If you have 125 baseball cards. You buy 100 more, how many do you have? Write the answer on your board.” S: <i>will write $125 + 100 = 225$ or 225 on their board.</i> T: “Show me your boards.” S: <i>will show their boards.</i> T: “Very good, who wants to tell me how they got the answer?” S: <i>will raise their hands and explain how they got the answer. (answers will vary)</i></p> <ul style="list-style-type: none"> Write the number 642 on the board. <p>T: “Look at the number on the board. Six hundred forty two. What is ten more than 642? Raise your hand.” S: <i>will raise their hand and say, “652.”</i> T: “How do you know that?”</p>		

S: *will respond, "because one more ten is 52."*

- If students do not understand adding by ten use tens rods or a hundred chart and show them that when you add ten you only change the tens place.

T: **"What is ten less than 642? Tell your neighbor."**

S: *will tell their neighbor, "632."*

T: **"Please write it on your board."**

S: *will write 632 on their boards.*

T: **"Show me your boards. I see that most of you wrote 632. Look at the hundred chart. If I start at 42 and I move one row up, it is 32. Good job."**

- If students need more practice, do more numbers, otherwise move on to guided practice.

Guided Practice: (10 minutes)

Using the Modeling Cycle:

Teacher Does:

T: **"Now I need you guys to practice with a partner. Each partnership will be given page 309 and one number cube. You will roll the number cube 3 times to get your number. You will write the 1st number in the hundreds place. You will write the 2nd number in the tens place and you will write the 3rd number in the ones place. Then you will write ten more, ten less, 100 more and 100 less than that number. Let me show you what I mean."**

1 Student Does with Teacher:

T: **"I need one helper."**

- Teacher will choose a student.

T: **"You get to roll the dice three times. And I will write the numbers."**

S: *will roll the dice.*

T: **"You rolled _____. I will write that in the hundreds place."**

S: *will roll the dice again.*

T: **"You rolled a _____. I will write that in the tens place."**

S: *will roll the dice again.*

T: **"You rolled _____. I will write that in the ones place. What is our number?"**

S: *will say the number.*

T: **"10 more is _____. I will write it. What is 10 less?"**

S: *will say, "ten less is _____. I will write it."*

T: **"Good job. 100 more is _____. I will write it. What is 100 less?"**

S: *will say, "100 less is _____. I will write it."*

T: **"That is all you need to do. Remember to say, "10 more is ____" and "10 less is ____" and "100 more is ____" and "100 less is ____."**

2 Students Do:

T: **"I need two more of you to demonstrate."**

- Teacher will choose 2 students.

T: **"I need you two to demonstrate the activity. Make sure you are asking and answering questions as you demonstrate. The sentence frames and new words are on the board."**

S: *will demonstrate the activity.*

- The teacher will help and guide the students as needed.

T: **"Good job. I love how much language I heard. Please go back to your seat."**

All Students Do:

T: **"I will call out your groups. You will need to collect your paper and number cubes, then get started. I will walk around the room to make sure you are talking!"**

- Teacher will call out the groups and pass out the papers.

S: *will work in their groups rolling the number cubes and ten more/less and 100 more/less than the numbers rolled.*

- Teacher will walk around the room helping the students as needed and reminding them to talk throughout the activity.

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

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

Independent Practice: (5 minutes)

T: **"Now, I need you to work on your own. We will do the first one together, and then you will do 3 by yourself."**

T: **"The guided practice problems will give you a model using hundred flats, tens rods, and unit cubes. You will need to look at**

the model and figure out the answers to the questions. They will be 10 more, 10 less, 100 more, and 100 less. I will draw the first model on the board with the problems."

T: "I will also pass out your papers, then you can go to your desk and do the problem with me."

- Pass out the papers and send the students to their desks.
- Teacher will draw 1 hundreds flats 1 tens rods and 4 unit cubes on the board.
- Write $114 + 20 = \underline{\quad}$ and $114 + 200 = \underline{\quad}$ on the board.

T: "We have 114 on the board. And we need to solve 2 problems. $114 + 20$ and $114 + 200$. What is $114 + 20$? Please write the answer on your paper."

S: will write 134 on their papers.

- Use tens rods and hundreds flats

T: "We have 114 and we want to add 20. That is adding two tens rods. Let's count up the place-value blocks. 100, 110, 120, 130, 131, 132, 133, 134. So, 114 plus 20 is 134."

T: "Let's do the second one, what is $114 + 200$? Write it on your board."

S: will write $114 + 200 = 314$.

T: "Show me your papers."

S: will show the teacher their papers.

T: "Good job, 114 plus 200 equals 314. Let me show you with the place-value blocks. We will add to hundreds flats. 100, 200, 300, 310, 311, 312, 313, 314."

T: "You may now get started. You have 4 minutes to do the last 3 problems.

S: will get started on their work.

- Teacher will walk around helping students as necessary.

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

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

Closing: (5 minutes)

- Pass out whiteboards, erasers and markers.

T: "One more problem for the day. I will read you a story problem and you will need to write the answer."

T: "183 people are in line. 20 more people get in line. How many people are in line now?"

S: will write 203 people.

T: "Show me your boards. You are right, there are 203 people. If we add two to the tens place, count with me 8, 9, 10...that means we change the hundred to be one more. Let me show you with the place-value blocks."

- Count the problem with the place-value blocks so the students can see the carry over.

T: "Good job today. Erase your boards and put everything away."

Assessment:

Guided and Independent Practice