Grade 2	Lesson: 9-4 Models to Subtract Two-Digit Numbers	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 use models to subtract two-digit numbers, with and without regrouping. *I can use connecting cubes to subtract two-digit numbers.*	Students will explain the order of solving a problem using 1st, 2nd, 3rd, 4th. *I can explain the order of solving a problem using 1st, 2nd, 3rd, 4th.*
Essential Understanding: The standard algorithm for subtracting two-digit and two-digit numbers is just an extension of the algorithm for subtracting two-digit and one-digit numbers.	**Required Academic Vocabulary for Word Wall:** **Listen:** **Read:** **Write:** **Speak: 1st, 2nd, 3rd, 4th** **Sentence Frame:**
Materials: • Place-Value Mat A (Teaching Tool 8) • Connecting Cubes (or Teaching Tool 1) • Whiteboards, erasers, and markers. • Models to Subtract Two-Digit Numbers (page 267) • Guided Practice (page 268)	**Additional Lesson Vocabulary:** Baseball cards,

Lesson: **Instructional Time: 35 minutes**

Opening: (3 minutes)

T: "You have learned to subtract a one-digit number from a two-digit number. Let's do one!

T: "Look at the board, 20 - 3 = ___."

T: "Do I subtract ones or tens first?"

S: *will respond, "we subtract the ones first."*

T: "Yes, we subtract the ones first. 0 take away 3. Can we take 3 cubes from 0?"

S: *will respond, "no."*

T: "No we can't. Do we need to regroup?"

S: *will say, "Yes."*

T: "Yes. We need to regroup. I will take 1 of the groups of tens and break it up. How many ones do I have now? I will write 10 in the box over the ones and cross out the 2 and make it 1."

T: "Now I will take away 3. How many do I have now?"

S: *will respond, "7."*

T: "How many tens do we have left? Show me with your fingers."

S: *will show 1 fingers.*

T: "Let me write it. 20 – 3 = 17. Now, please read the subtraction sentence to your neighbor."

S: *will read the subtraction sentence to their neighbor, "20 – 3 = 17."*

T: "Today, you will learn to subtract a two-digit number from a two-digit number.

Introduction to New Material (Direct Instruction): (5 minutes)

- Write 31 – 6 = 25 and 31 – 16 = ___ on the board. Show them side-by-side in vertical form.

T: "How are these problems alike?"

S: *will respond, "they both have the number 31" or "they both have 6s" or "they are both subtraction problems."*

T: "How are they different?"

S: *will respond, "there is 1 ten in the second problem."*

T: "Let's do a subtraction problem together. This one will have 2 two-digit numbers."

T: "I will write the problem on the board. While I write the problem, you need to collect your whiteboard, eraser and markers."

- Teacher will write 42 – 19 = ___ on the board (vertical subtraction frame).

T: "I need you to write the problem on your board."

S: *will write 42 – 19 on their boards.*

T: "We need to subtract. What do we do first?"

S: *will say, "we subtract the ones."*

T: "What is 2 take away 9?"

S: *will respond, "we can't" or "we need to regroup."*

T: "We need to regroup. I will take one of the tens and put it with the ones. That makes 3 in the tens place and 12 in the ones place. What is 12 minus 9?"

S: *will respond, "12 – 9 = 3"*
T: "12 minus 9 equals 3. I will write a 3 in the ones place."
T: "Now what do I do?"
S: *will respond, "subtract the tens."*
T: "Yes, I subtract the tens. 3 take away 1 equals what? Show me with your fingers."
S: *will show 2 fingers.*
T: "Yes, 3 take away 1 equals 2. So, 42 minus 19 equals 23. Please read the subtraction sentence to your neighbor."
S: *will turn to their neighbor and say, "42 minus 19 equals 23."*

Guided Practice: (12 minutes)
Use the modeling cycle:
Teacher Does:
"Now I need you to work with a partner and solve 4 more problems. We will do 1 more problem together."
1 Students Does with Teacher:
- Write 23 – 17 on the board in a subtraction frame.

T: "I need a helper.
- Teacher will choose a student.

T: "I need you to teach me how to subtract the problem on the board."
S: *will explain,*
  - *1st add the ones.*
  - *2nd regroup*
  - *3rd add the tens*
  - *4th read the subtraction sentence*

S: *as the student explains they will also solve the problem.*
- Help the student as needed.

T: "Thank you very much for teaching us. You did very well."

All Students Do:
T: "Each of you will teach your partner how to do a subtraction problem. The problems are written on the board. The papers are on the counter. Collect your papers and get started."
S: *will collect their papers and get started.*
- Teacher will walk around the room helping students as needed.

T: "10,9,8,7,6,5,4,3,2,1 Time is up! Please turn in your papers and come sit on the carpet."
S: *will clean up, turn in their papers and sit on the carpet.*

Independent Practice: (7 minutes)
- Write 52 – 13 = ___ on the board in a vertical subtraction frame.

T: "Now it is your turn to do some problems on your own. I will do the first one with you. Look at the board, 52 - 13 = ___."
T: "Do I subtract ones or tens first?"
S: *will respond, "we subtract the ones first."*
T: "Yes, we subtract the ones first. 2 take away 3. Can we take 3 cubes from 2?"
S: *will respond, "no."*
T: "No we can't. Do we need to regroup?"
S: *will say, "Yes."*
T: "Yes. We need to regroup. I will take one of the groups of tens and break it up. How many ones do I have now? I will write 12 in the box over the ones and cross out the 5 and make it 4."
T: "Now I will take away 3. How many do I have now?"
S: *will respond, "9."*
T: "Now we need to subtract the tens. What is 4 minus 1? Tell your neighbor."
S: *will turn to their neighbor and say, "4 minus 1 equals 3."*
T: "Show me with your fingers, what is 4 minus 1?"
S: *will show 3 fingers.*
T: "Let me write it. Now, please read the subtraction sentence to your neighbor."
S: *will read the subtraction sentence to their neighbor, "52 – 13 = 39."*
T: "Good job. Now it is your turn to do the guided practice problems. You will have 5 minutes. I will pass out the papers and you do your work at your desks."
- Teacher will pass out their guided practice papers and return to their desks.

S: *will complete the guided practice paper.*

T: "10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Time is up! Turn in your papers, get your whiteboards, erasers and markers, then go to the carpet."
S: *will turn in their papers, collect their boards, erasers and markers, then go to the carpet.*

Closing: (5 minutes)

- Pass out the whiteboards, erasers and markers.

T: "Last problem of the day. It is a story problem. Write down or draw the important information on your boards."
T: "Write a subtraction frame on your board."
S: *will write a subtraction frame on their board.*
T: "Show me your boards. Good job, now I will read you the story problem."
T: "Anita has 63 baseball cards. (give students time to write 63) **Dave has 24 baseball cards.** (give students time to write 24) **How many more cards does Anita have than Dave? Make sure you wrote the numbers in the subtraction frame."**
T: "Show me your boards."
S: *will show the teacher their boards.*

- Check the student boards to make sure the students wrote the equations correctly.

T: "Help me fill in my subtraction frame. How many baseball cards did Anita have?"
S: *will respond, "63 baseball cards."*
T: "Right, so I will write 63 at the top of my frame."

- Write 63 in the subtraction frame on the board.

T: "How many baseball cards does Dave have?"
S: *will respond, "24"*
T: "Yes, I will write 24 below 63 in the subtraction frame."

- Write 24 in the subtraction frame.

T: "Now I need to subtract. I will start with the ones. 3 take away 4. Can I do that?"
S: *will say, "no."*
T: "What do I need to do?"
S: *will say, "regroup."*
T: "Yes I need to regroup. I will take one group of ten from the tens. Now I have 13 in the ones and 1 in the tens. What is 13 take away 4? Tell your partner."
S: *will turn to their partner and say, "13 minus 4 equals 9."*
T: "13 minus 4 equals 9. I will write 9 in the ones place. Now I need to subtract the tens place. Show me with your fingers what 5 take away 2 is."
S: *will show 3.*
T: "Yes, I will write 3 in the tens place. That makes 39. Please read the subtraction sentence to your neighbor."
S: *will tell their neighbor, "63 minus 24 equals 39."*
T: "Good job! 63 minus 24 equals 39."

Assessment:

Guided Practice