Grade 3	Lesson: 3-8 Subtracting 3-Digit Numbers	Reference to English

Math Standard(s): 3.NBT.2 also 3.OA.8, 3NBT.1 **Domain: Number and Operations in Base Ten**

Content objective(s):	Language Objective(s):
Students will subtract 3-digit numbers using paper-and-pencil methods and use subtraction to solve problems. *I can subtract 3-digit numbers using paper-and-pencil methods.*	Students will explain the steps of 3-digit subtraction to their partner. *I can explain the steps of 3-digit subtraction to my partner.*
Essential Understanding: Models and the standard algorithm for subtracting 3-digit numbers are just an extension to the hundreds place of the models and standard algorithm for subtracting 2-digit numbers. In the traditional subtraction algorithm for 3-digit numbers, sometimes it is necessary to rename 1 hundred as 10 tens or 1 ten as 10 ones.	**Required Academic Vocabulary for Word Wall:** **Listen:** **Read:** **Write:** **Speak:** **Sentence Frame:**
Materials: • Whiteboards, erasers, and markers • Guided Practice page 83 • Teaching Tool 35 • Place-value blocks or teaching tool 18	**Additional Lesson Vocabulary:** Round, estimate, subtract,

Lesson: **Instructional Time: 30 minutes**

Opening: (4 minutes)

- Pass out whiteboards, erasers and markers.

T: "You have learned how to subtract 3-digit numbers using models. Let's do one together. We will subtract 2 3-digit numbers by using a model. The problem is 347 minus 162. I will write it on the board."
T: "On you whiteboards please draw 347 using place-value images."
S: *will draw 3 hundred blocks, 4 ten rods, and 7 ones units.*
T: "Please show me your boards."
T: "How many hundreds did you draw?"
S: *will say, "I drew 3 hundred blocks."*
T: "I will do the same."
T: "How many tens did you draw?"
S: *will say, "I drew 4 tens rods."*
T: "Correct, I will draw 4 as well."
T: "How many ones did you draw?"
S: *will say, "I drew 7 ones."*
T: "Now that we have drawn 347, let's subtract 162. Where do we start?"
S: *will say, "we subtract the ones."*
T: "Cross out 2 of the ones units."
T: "What is next?"
S: *will say, "subtract the tens."*
T: "Great, now finish subtracting the rest of the problem on your own."
S: *will finish solving the problems.*
T: "Please show me your boards."
T: "To subtract the tens we need to regroup. I will take one of the hundreds move it to the tens. Now we have 14 tens and we need to take away 6. How many are left?"
S: *will say, "14 subtract 6 equals 8."*
T: "Lastly, 2 hundreds take away 1 hundred equals 1 hundred. Please turn to your neighbor and tell them the subtraction sentence."
S: *will turn to their neighbor and say 347 minus 162 equals 185."*
T: "Good job! Today we are going to do the same kind of subtraction, but we are going to subtract 3-digit numbers using paper and pencil."

Introduction to New Material (Direct Instruction): (5 minutes)
T: "Now we need to subtract the same numbers but instead of using the pictures we drew, we are going to just use the numbers."
T: "You are going to work with a partner and solve the problem using paper and pencil. Please remember to tell your neighbors the steps you must take to solve the problem."
S: *will use paper and pencil to solve 347 – 162.*

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

T: "You have 1 more minute."
T: "Time is up. Please show me your papers."
T: "Now let's do it together on the board. When we solved this problem using pictures we started by subtracting the ones place first. We will do the same with standard subtraction."
T: "Please subtract the ones place on your board."
S: *will subtract the ones place.*
T: "Please show me your boards."
T: "Good, 7 minus 2 equals 5. Now let's subtract the tens together. Can we subtract 4 minus 6?"
S: *will respond, "no, we need to regroup."*
T: "Yes, how do I regroup?"
S: *will respond, "take one of the hundreds and make it 10 tens."*
T: "14 minus 6 equals 8. I will write 8 at the bottom of the tens place."
T: "Lastly we subtract the hundreds. Please subtract the hundreds and tell you neighbor the answer."
S: *will subtract the hundreds and tell their neighbor the answer.*
T: "Let's read the number sentence together, 347 minus 162 equals 185."

Guided Practice: (7 minutes)
All Students Do:
T: "Now I am going to write 3 more problems on the board. I want you to work with a partner to solve the problems. Remember to tell your neighbor the steps you are taking to solve the subtraction problems.

1. **Subtract the ones, regroup when needed.**
2. **Subtract the tens, regroup when needed.**
3. **Subtract the hundreds."**

- Write 327 – 238, 574 – 86, and 431 – 145 on the board.
- Separate the students into pairs.

T: "You will have 6 minutes to complete the 3 problems and I want to hear you tell each other the steps you are taking."
S: *will work in pairs and solve the 3 problems on the board.*
T: "You have 1 minute left."
T: "Time is up. Please turn in your papers and come sit on the rug."

Direct Instruction: (4 minutes)
T: "We are going to do another problem together. This time we are going to estimate before we solve it."

- Write 385 – 296 on the board.

T: "Please help me estimate 385 to the nearest hundred."
S: *will say, "385 estimated to the nearest hundred is 400."*
T: "Yes, it is 400, what is 296 estimated to the nearest hundred?"
S: *will say, "296 estimated to the nearest hundred is 300."*
T: "Now all we need to do is subtract 400 minus 300. Please write it on your board."
S: *will write 100.*
T: "Good job. Now subtract the problems on your own on your board."
S: *will solve the problem.*
T: "Please show me your boards."
T: "Good job."

Independent Practice: (5 minutes)
T: "Now I need you to go to your desks and open your books to page 83. Please solve problems 10, 11, and 12."

- Write 10 ,11 and 12 on the board.

S: *will go to their desk and begin work.*

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

T: "You have 1 minute left."
T: "Please clean up, turn in your papers and come sit on the floor."
S: *will clean up, turn in their papers and come sit on the carpet.*

Closing: (4 minutes)

- Pass out whiteboards, erasers and markers.

T: "We are going to do one more problem together to finish the lesson. I will write it on the board and I need you to estimate

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the answer on your whiteboard."

- Write 948 – 569 on the board.

S: *will estimate the answer on their boards.*

T: "Please show me your boards."

T: "Yes, 948 rounds to 1000 and 569 rounds to 600. The estimated answer is 400."

T: "Now I want you to solve the problem, but first let's go through the steps. What are they?"

S: *will respond, "first subtract the ones, then the tens and last the hundreds. Regroup when needed."*

T: "That is correct. Now solve the problem."

S: *will solve the problem.*

T: "Now turn to your neighbor and tell them how you solve the problem."

T: "Good job! 948 minus 569 equals 379."

Assessment:

Guided Practice problems 10,11,12.

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