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ED 427 Section 6
1-29-19
Lesson Plan #3

Topic: Small Group Math Intervention (Subtracting a two-digit number from a three-digit number)

Lesson Type: Direct Instruction

Standards: CCSS 2.NBT.B.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

CCSS LITERACY.SL.2.1 Ask for clarification and further explanation as needed about the topics and texts under discussion.

Objective: Students will be able to subtract 2-digit numbers from 3-digit numbers with at least 80% accuracy.

Assessment Plan: 1) Students will be able to subtract 2-digit numbers from 3-digit numbers with 80% accuracy. 2) This formative assessment will occur throughout the lesson 3) as students correctly solve problems presented to the whole group. 4) The instructor will listen to verbal explanations of answers and look at written responses to evaluate individual understanding of subtracting using the ungrouping and expanded form methods 5) in order to guide further instruction.

DOK: Level 1. Are there enough ones to subtract from? Does this column represent tens or ones?

Level 2. Why do we need to ungroup to solve this problem? Why is knowing how to subtract important?

Materials Needed: Each student needs their notebook of lined paper, one pencil for each student, eraser for each student, lined paper and a pencil for the teacher, the stay in the lines card from Unit 4 Lesson 7 (located in the red intervention display on supply table), enough bags of green math block manipulatives for teacher and each student (located in bin on supply table), 1 whiteboard for teacher, and one dry erase marker for teacher.

Total Participation Techniques: Think-Pair-Share: During the anticipatory set and input and modeling portions of the section ask students questions. Give them 10-15 seconds to think about their answer and then give them 15-30 seconds to share their answers with a buddy.

Differentiation: Struggling: Students who are struggling to understand how to solve subtraction problems will only be required to show proficiency in the method they are most comfortable

with. In addition, they will be given math manipulative blocks to help see and understand what they are doing with subtraction.

Advanced: They will likely understand the concept easily. Have the students practice solving the equations using the standard algorithm rather than using expanded form or ungrouping method. During the lesson they will be given more complicated problems to solve and asked to solve the problem on paper and then double check their work using the math manipulative blocks.

Anticipatory Set: (Place bags of manipulative blocks on kidney bean table).

Teacher: Alright boys and girls! We're going to play a game! You keep asking me how old I am. Well today you're going to find out.

Recall Prior Knowledge: (Hold up the 10 stick from the manipulatives bag)

Teacher: Who remembers what this stick represents?

Students: 10!

Teacher: Correct! What about this block? (hold up the one hundred block)

Students: 100!

Teacher: And these cubes? (hold up a one block)

Students: 1!

Teacher: Do we stack our cubes? (No!) Do we let them play with our friends blocks? (No!) Do they belong on the floor? (No!).

Input and Modeling:

Teacher: Alright! Today we're going to we're going to figure out how old I am using subtraction. We are going to use these blocks to help us see what we're doing as we subtract using the ungrouping or expanded form method for solving a subtraction problem. First, we're going to solve $200-63$. (Use lined paper. Turn it sideways so the lines form vertical columns. Write 2 in one column [the hundreds place] 0 in the next [the tens place] and 0 in the third [the ones place]. Write -63 underneath in the corresponding columns [there is an example on the intervention card]). I want you to write $200-63$ just like I did on my paper and solve it with me. This will help us keep all of our numbers in the right place! First of all, can we subtract 3 from 0? (S: No!)

Teacher: Right! We have to ungroup so that we can subtract 3. Now, can we ungroup from 0? (S: no!). You're right! That means we have to ungroup our hundreds. First, we're going to ungroup 1 of our 2 hundred. I'm only ungrouping 1 of them so I'm going to cross off the 2 and write one on top to remind me that I only have one-hundred there now. How many tens are in one-hundred? Let's figure it out by counting to hundred in tens (use your fingers to count how many tens you say). 10, 20, 30, 40, 50, 60, 70, 80, 90, 100. There are 10 tens. I'm going to cross off my 0 and write the 10 tens above it. Since there was only 0 in our tens place, 0 plus 10 still equals 10. Now, I'm going to ungroup my tens so that we can subtract our 3. First, I'm going to cross off the 10 and write 9 above it because I'm only ungrouping 1 of the tens. I'm going to cross off the 0 in the ones place and write ten above it because $10+0$ is still 10. Now we can subtract 63, What's 10 minus 3? (S: 7). What's 9-6? (S: 3). What's 1-0? (S: 137).

Guided Practice:

Teacher: Lets practice solving some problems by ourselves. I want you to solve these problems (write out $200-48$, $100-79$, $200-35$, $100-71$) using either the expanded form or ungrouping methods. If you need help ask the teacher, not a neighbor.

(As the children work on their worksheets, walk around the room and watch the students work to make sure they are understanding the problems and solving them correctly. Give one-on-one assistance as necessary. Encourage students to solve the problems by themselves and then check the answers using the manipulative blocks. For struggling students show them how they can use the blocks as they work to help them figure out their answers).

Closure: Students, one of the answers you got is how old I am. Raise your hand if you think you know which one it is. (chose students to tell you which answer they think is how old you are until one of them guesses correctly).

Transition: Each child will show their answers before joining the rest of the students for the next activity.

Reflection: