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ED 427 Section 6
2-19-19
Lesson Plan #9

Topic: Math: Mixed Word Problems
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 represent and solve a variety of word problems with at least 80% accuracy.
Assessment Plan: 1) Students will be able to represent and solve a variety of word problems with at least 80% accuracy. 2) This formative assessment will occur throughout the lesson 3) as students work to correctly solve problems presented to the whole group. 4) The instructor will listen to verbal explanations and discussions of answers and look at written responses to evaluate individual understanding of writing equations for word problems 5) in order to guide further instruction.

DOK: Level 1. What do you call the part you're trying to find in a math problem? Are we subtracting or adding these numbers?
Level 2. How do we write this as an equation? What other ways could we draw pictures beside math mountains?
Materials Needed: Pencils for each student, each child needs their math workbook, smartboard and smartboard pens, PowerPoint for Unit 4: Lesson 20 (under the unit 4 folder on teacher computer).

Total Participation Techniques: Think-Pair-Share: Throughout the lessons, have the students work on the problems and answer the questions you ask with a buddy first before asking them to share their ideas with the whole class.

Differentiation: Struggling: Students who are struggling to understand how to solve the problems will have the opportunity to solve the problems with the teacher as she solves them on the smartboard. In addition, they will not be required to work with a buddy.
Advanced: They will likely understand the concept easily. Have the students explain how they set up the problems and equations to their shoulder buddy. In addition, have them think of pictorial ways other than math mountains to solve the problems after they have shown how to solve them using math mountains.

Anticipatory Set: Students, I have a little problem. Xxxxx asked me to do some math mountains with you but it's been so cold my brain froze and I can't remember how to do them! I need help remembering how to do one. (Call on a student to help you draw a math mountains).

Recall Prior Knowledge: Remember last week when we talked about situation and solution equations? Who can tell me what the situation equations is?

Student: It's where you take the parts you know in the story and just write them down as is. If someone gives something away you write down the equation as a subtraction problem and if they get some more of something you write it down as an addition problem.

Teacher: That's correct! How is that different from a solution equation?

Student: You change the situation equation into an equation you can solve.

Teacher: That's right! If our situation equation gives us the total and we want to figure out what the other part is, we can subtract the part we do know from the total to figure out the other part in the equation.

Input and Modeling:

Teacher: (First slide in presentation) Alright! Turn to page 243 in your workbooks. Let's look the first word problem together and figure out what our equation could be and how we can draw a picture of it. "Maxine's grandmother cuts out 48 fabric squares to make a quilt. She needs 16 more squares to complete the quilt. How many squares will be in the quilt altogether?" Alright, what could my equation be? I want you to write an equation on your board. How many of you wrote this down as your equation? (48+16=?).

*Students***:** I did!

Teacher: Great! We know that Maxine's grandma started with 48 squares, and that she needed 16 more to finish her quilt. We don't know the total number of squares she had to finish the quilt. Now, that we have an equation I want you to create a drawing to help you see and solve the equation. You can use sticks and circles, math mountains, or any other drawing that models what is happening. (Call on one student to come up and show the class their drawing) (Repeat with problems 2-4)

My mentor teacher is teaching the rest of the lesson but if I were doing the, the guided practice, closure, and transition this is what I would do.

Guided Practice/Independent Practice:

Teacher: Alright class, I want you to work on the problems 2-3 on pages 244-255 by yourselves. Remember to write an equation and a drawing for each problem.

Closure: Students, who thought that math was kind of fun today? Remember, we can write different equations to help us solve our problems and use drawings to help us see what we are doing. Next time you're doing math, try writing both situation and solution equations and drawing a picture or math mountain to help you see what's going on in the problem.

Transition: Each child will have the teacher look at and approve their worksheet before putting their math things away and preparing for recess.

Reflection: