

Math ~ Lesson 4.5 “Two Methods of Subtraction”

Common Core Standards taught in Lesson:

- **CC.2.OA.1:** Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- **CC.2.NBT.5:** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **CC.2.NBT.7:** Add and subtract within 100, 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.
- **CC.2.NBT.9:** Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)

Objective(s) of the Lesson: Solve 2-digit subtraction problems using the Expanded Method and the Ungroup First Method.

Procedure Steps (what will you and students do?):

- Today we are going to learn two new methods for subtracting 2 digit numbers: The Expanded Method and the Ungroup First Method. Let’s look at the Expanded Method first. Who remembers Mr. Green from when we learned about addition? (if no one remembers, remind them of the Show All Totals Method of addition by writing the sample problem from page 380 on the SmartBoard). Tell the students he has a similar method for subtracting! Go to the next page of the SmartBoard and show them the sample problem “Mr. Green has 64 tomatoes in a basket. He sells 28 tomatoes. How many are left?”
- Go through the Expanded Method (on page 382). Have students open workbooks to page 173 and complete number 1 together as a class. Then have students complete 2 and 3 independently and go over answers as a class.
- Now move onto the second method: The Ungroup First Method. Who remembers Mrs. Green? She liked a different method for addition (the New Groups Below Method). Write the sample addition problem on the board (page 383). Then go to the same sample problem we used for Mr. Green and walk through the Ungroup First Method (on page 385). Have students turn to page 174 in their workbooks and complete number 4 together as a class. Then have students work with their Math Partners to complete numbers 5 and 6.
- If time: Go to last page of the SmartBoard file and review the Puzzled Penguin problem (page 386).

Technology Used (if applicable): SmartBoard file

Evaluation (Formative? Summative? How will you know students learned the material?):

Formative: As we go through the lesson, I will need to assess the student’s understanding of the two methods. If they are struggling with the first method, I may need to spend more time on it before moving on to the second method.

Summative: Two-digit subtraction word problems will be on their Unit 4 test. I will look for evidence that they can use both the Expanded Method and the Ungroup First Method.

Closure (How will students summarize what they learned?):

We will review both methods before the next lesson and students will be talking to a partner about which method they like better and why.