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Strategies for Instruction
Dr. Korrine Gust
Modified Math Lesson Plan
November 17, 2006

*-Modifications/Adaptations in the lesson

Lesson: Subtracting using the number zero

Length: 20 minutes

Age or Grade Level Intended: 1st grade-Math

Academic Standard(s):

- 1.2.2 Show the meaning of subtraction (taking away, comparing, finding the difference) using objects.
- 1.2.4 Demonstrate mastery of the addition facts (for totals up to 20) and the corresponding subtraction facts.
- 1.2.6 Understand the role of zero in addition and subtraction.
- 1.5.7 Identify and give the values of collections of pennies, nickels, and dimes.

Performance Objectives:

The student will orally give the correct amount of specific coin when asked 2 out of 3 times when observed.

When given a subtraction problem, the student will be able to subtract using zero with 4 out of 5 correct.

* When using manipulatives, the student will be able to demonstrate a given subtraction problem with 80% accuracy.

Advance Preparation by Teacher:

- Have “Classroom Cash” money ready and available
- Mark down which students turned in homework on time in order to pay the appropriate amount to each student
- Write subtraction problems on the chalkboard ahead of time
- *For LD or MiMH students, have a set of manipulatives available for use.
- *For MiMH students with fine motor issues, larger chalk may be needed.

Procedure:

Introduction/Motivation:

Have the students bring their “money bags” and sit in a circle on the floor. Ask the students how much a quarter, dime, nickel, and penny is worth. Then ask the students how many pennies make a nickel and how many nickels make a dime. Then ask the students for different ways to make a quarter (25 pennies, 2 dimes & 1 nickel, 5 nickels, etc.) (Verbal, Logical/Mathematical-Gardner; Knowledge, Application-Bloom) The teacher will then hand out 15 cents to each student that turned their homework in on time. The students will put their money into their “money bags.”

* The teacher could prepare an ED student ahead of time for a question about an amount of a specific coin.

Step-by-Step Plan:

1. The teacher will verbally give an example of the students going to the classroom store and buying certain items.
2. For example, "Susie goes to the classroom store and buys 2 pencils. Each pencil costs 10 cents. How much total money does Susie owe?" The students would then respond, "20 cents."
3. Then the teacher would add in the subtraction problem. "If Susie has 50 cents and she owes the store 20 cents, how much money would she have left?" The students would respond, "30 cents."
4. The teacher could continue to make up problems like this.
5. Another example for a subtraction problem could be: "Ryan has 4 cats in his house and when his mom opened the door, all 4 cats ran outside. How many cats are left in Ryan's house?" The students would respond, "Zero."
6. Also, the teacher could give an example of taking away zero things to end up with the same answer: "John has 7 pieces of paper and does not use any of them. How many pieces of paper does he have left?" The students would respond, "Seven."
7. Have the students put their "money bags" at their desk and then all stand around the chalkboard. (Bodily/Kinesthetic-Gardner)
 - * For a student in a wheelchair, make sure that student is in front of the group so that he/she is able to see the chalkboard and be involved.
8. The teacher will point to each picture and have the class "choral count" each picture out loud. The teacher can have a student write that number on the board in the first blank in the equation. (Verbal, Visual/Spatial-Gardner; Knowledge-Bloom)
 - * For a student with fine motor issues, the teacher could have a larger piece of chalk available. The larger chalk would be easier for the student to control.
9. Then the teacher will ask how many pictures are taken away (represented by an "X" through the picture). The student will write that number after the subtraction sign in the equation.
10. Then the teacher will ask the class what the answer is to the equation.
11. After completing three more equations on the board, the teacher will have the students return to their desks and get their math books out.
12. The teacher will have the students turn to the correct math page (page 36) and explain that the problems on that page are the same type of problems that they did as a class on the board.
13. The students will work on the worksheet on their own and ask the teacher if they experience any problems. (Application-Bloom)
 - * For a LD student who struggles in math, the teacher may need an aide to help the student complete the assignment.
 - * A LD or MiMH student may also need manipulatives to help them complete the worksheet. With the use of manipulatives, the student might be able to understand the problems better.
14. Have the students turn in their worksheet.

Closure:

The teacher will give more examples of oral story problems and assess based on correct answers from students. The teacher will also give “classroom cash” to each student for turning in their math worksheet on time once it is graded.

* The teacher could follow-up with a small group activity for students who are struggling, such as a LD or MiMH student. More one-on-one interaction may also be needed if the teacher notices certain students struggling with the assignment.

Adaptations/Enrichment:

MiMH→ A student with fine motor issues may need larger chalk if that student wants to write the numbers to an equation on the chalkboard. He/she may also need more one-on-one interaction with manipulatives with an aide or the teacher.

LD→ If the student struggles with math, more time may need to be spent on this lesson. Assignments that can be completed at home may need to be given in order to get extra help. Manipulatives will most likely be needed as well. If the problem becomes severe and the student is still not understanding the concepts taught, further intervention may be needed, such as pull-out services and help from the school’s resource room.

ED→ Prepare the student ahead of time if the teacher plans to call on him/her to answer a question. Also, an aide may be needed to assist the student in completing the assignment if it becomes challenging and visibly frustrating for the child.

Self-Reflection:

Assess: Grade the homework assignment the students turned in.

- If significant problems are occurring on the homework and many students do not understand the concepts taught, an extra couple of days may need to be devoted to re-teaching the content.

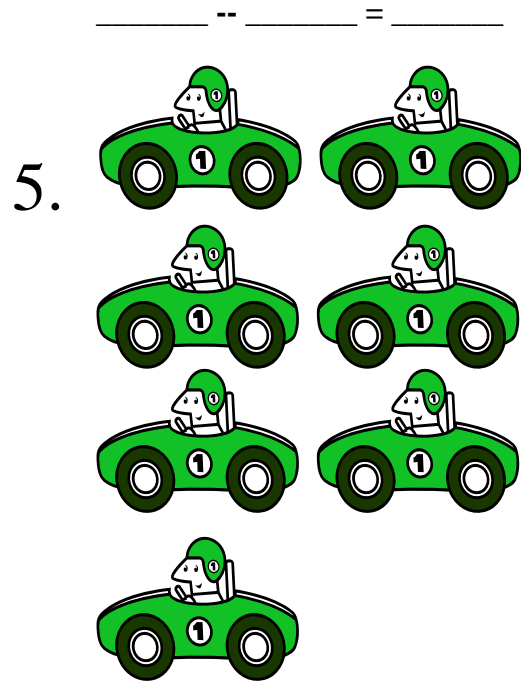
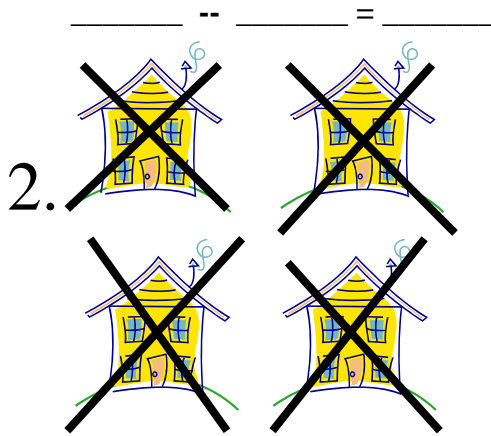
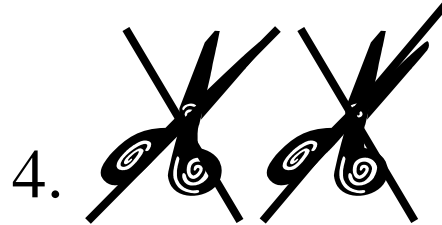
Questions to ask:

- Did the majority of the students reach the objective goals?
- In future lessons, are the students understanding the concept of subtracting using zero?

Name: _____

Subtraction using 0

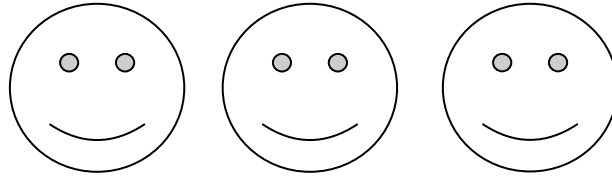
Directions: Complete each subtraction problem by filling in each blank with the correct number. Then solve.



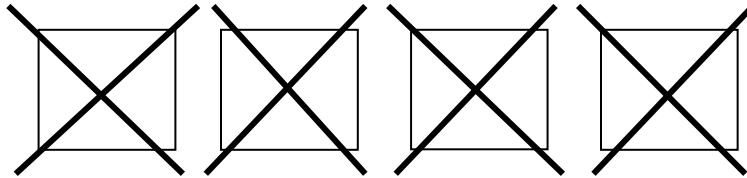
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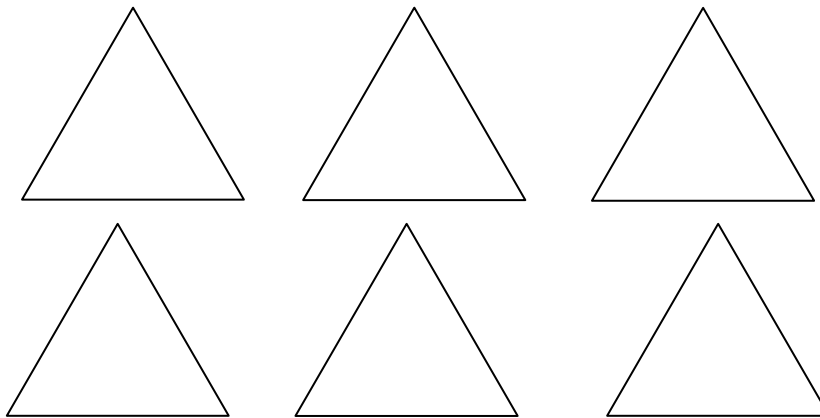
Problems to write on the chalkboard



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