

Shopping Spree II



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Math-Ese

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“Using Manipulatives to Solve Problems”

This lesson is the second part to the original lesson called, “Shopping Spree”. This was a lesson I presented for the second follow-up visit concerning “Comprehension of Word Problems.” It was the general topic lesson. I had great success with that lesson in my class and we have continued playing that game. I decided to add something to the game as an extension and that is why I created this lesson. Since, my students loved the original game, I thought they might continue to like it if we changed a few things and added more to it.

This lesson fits the category of “Using Manipulatives” because it is using very inexpensive die (regular and color) that I got at the Dollar Tree. It is very important to find inexpensive ways to get your students to enjoy school and especially math. My students have gotten to the point that they ask me if I have up with some more “cool math games.” The funny part of it is that they do not realize that they are practicing their math skills and actually as much work if not more than on their regular homework.

This lesson deals with continuous subtraction and addition as well as mental math. My students were particularly struggling with the concept of estimation and mental math. I consider that in this lesson there are real-world activities that we do on an everyday basis, which is the use of estimation as well as mental math along with calculating money amounts. Not to mention that they are included among the very necessary life skills. These are the reasons that I chose to create this lesson for my class.

The literacy in the lesson is considered to be the use of the catalogs. They have to read the catalogs in order for descriptions and amounts. This is a literacy/math activity that ties into real-life quite relevantly.

Shopping Spree II

A. Objectives:

Students will practice adding and subtracting money amounts in dollars and cents using one color die and two regular die

B. State Competencies:

Standard 3: Number Operations and Computation

2. Whole Numbers, Decimals, and Fractions

a. Add and Subtract decimal numbers with the same and different place values

1. Estimation

a. Use estimation skills to determine solutions to problems involving decimals.

C. Lesson Resources:

The original Shopping Spree I lesson idea came from Crazy Dice Math by Kris Hirschmann by CB Publishing ISBN: MTH-DCEGM. The extensions and changes are of my own creation.

D. Materials:

Per two person group:

2 regular die

1 10-sided die

piece of notebook paper for each student

set of catalogs for each student (I used three different scholastic book orders.)

E. Instruction:

a. Introduction:

The students will be told that they will play to help them practice their adding and subtracting skills in money. The students will be given a time limit to “earn” their money. Then they will try to buy as many items as possible. The person that “buys” the most items is the winner of the game. (You can play both the whole class competing or in groups.)

Instructional Process:

1.) Ask the groups to choose one student to go first.

2.) Player 1 will roll the crazy die. The number on the top of the crazy will determine how many dollars the group gets. Player 1 then rolls the regular dice one at a time to see how many cents are earned. For example: If player 1 rolls a 5 on the crazy die, then a 2, then a 6 with

the regular dice, the player earns \$5.26 for that turn. . In other words, the students will take turns rolling, but all the players in that group will have the same amount of money. The students will be given a seven minute limit. At the end of this time, the “earning” stops. I give them a few minutes to check their adding. (because if they miscalculate at any point, they lose)

- 3.) Now they move on to spending the money. The students are given their group of catalogs. In my case I decided to have each group of teams compete with each other. Now they must find the way to get the most items possible without going over the amount they have. I chose to give my students a time limit of about 18 minutes. After that time limit, I will also give them a few minutes to check their calculations.
- 4.) When all work has been checked I will ask whose group got the most items with their amount of money. Then I will check all of their calculations with a calculator(to save time) to see if they are correct.
- 5.) The WINNING team will be team that “buys” the most amount of items with the amount of money they had.

b. Closure:

The closure to the lesson will be done with a discussion of the students thoughts on the game, including what they liked or disliked about the game along with what they thought made the game challenging or even ways to make the game more challenging. Some of the best ideas that I have implemented have come from my students.

- F. **Assessment:** Students will be assessed informally in their participation in the game. The students will be assessed formally on the papers they turn in where they added the money amount they earned while playing as well as the items that they chose to “buy”. The calculations must be accurate and they are required to show their work.

G. **Modifications/Accomodations**

Low Level: The reason I decided to play the game in teams was because my class is very cooperative and they tend to work well together not to mention they help low level students out of their own free will. This is why I paired them into teams. This also allowed the students to check each other’s work.

H. **Reflection:**

Wow! This worked better than expected. I added one component to it when I started teaching the game. I just came up with it in that moment. The component was that the winner had to be the one with the most items bought and the one with the least amount of money left over.

It was amazing to see what was coming out of their mouths. They would keep each other on task because they knew they were timed and they

wanted to win. Another beneficial part was that most groups started buying the most expensive items because that was what they wanted. They soon realized that if they spent their money on the most expensive items, they were not going to win. The students started saying things like, “We can’t buy that because it is too expensive” and “Money goes fast”.

After the lesson we talked about the different things I heard throughout the lesson. We also talked about earning vs. spending. The students finally realized that buying “everything” they want is not too good of an idea.

Next time I do this lesson, I will remind the students that they need to be neater on their work. I had a group that I could not read their numbers and they could not either. Because of that, I could not check their work and they did not even get a chance to prove their amounts. They were the second place group. The first place people lost because they miscalculated.

The use of the scholastic book club catalogs was a great success. They really enjoyed looking at them and choosing what they wanted to buy. This is definitely a lesson I will teach again.