

Money Unit: Day 5 or 6

SOLs:

1.10: The student will identify the number of pennies equivalent to a nickel, a dime, and a quarter; and determine the value of a collection of pennies, nickels, and dimes whose total value is 100 cents or less.

Learning Objectives:

TLW:

- Know the value of the penny, nickel, dime, and quarter.
- Count mixed groups of nickels, pennies, dimes, and quarters.
- Solve problems by using data from a picture and coin manipulatives.
- Evaluate groups of coins and create groupings that total a specific quantity.

Materials:

- Blank half sheets of paper (to create pages for a book)
- Plastic, Paper, or Real coins for manipulatives
- Crayons and writing utensils to color coins on the book pages
- Projector and computer connection to virtual coin manipulatives

Anticipatory Set: “How many coins do you need to make \$0.50? Is there more than one way to make \$0.50? How many ways do you think there are?” Prior to this lesson, there would be an entire unit focused on the students learning the value of each coin and how different coins can be added to create different sums. Once the students have practiced with counting coins, then this lesson will be used to have them expand on their knowledge.

Input: Before jumping straight to the answer to the questions, first go to easier levels of coin combinations. Ask if there are more than one way to make one cent, five cents, ten cents, fifteen cents, twenty cents, and twenty-five cents. To ensure that the students understand what is meant by combination, simplify it by saying that different coins can be used to create the same total. Use the virtual coin manipulatives on the computer to project the images on the whiteboard for students to see which coins are being used and to help them visualize what coins are available for them to create the sums.

Guided Practice:

Create a chart with the class to show how the different amounts of money can be made by combining different coins. The students will help create the poster by sharing combinations that they can come up with for the different sums. This poster serves as a demonstration for the activity that the children will do as independent practice. After finishing the chart with various combinations of the coin amounts, ask the original questions again. After allowing the students to make and write down their predictions, have the students work to find the answer to how many different combinations they can find to make \$0.50.

Independent Practice:

Break the class into groups based on their tables of four. Next, give each group a stack of paper to create their different coin combinations on. All of the groups will have coin manipulatives to work with. Each student will record the different combinations that the group comes up with.

During the investigation, visit different groups of students and ask them about their findings. Ask them how they know that their combination is worth fifty cents. Also ask whether their entire group agrees that the combination is correct. After thirty minutes of group work, have students share the different combinations with the entire class. Ask how the students think the different combinations should be recorded to avoid using the same coins twice. If the students do not understand, guide them into creating a chart, list, or table which displays the information easily for the students. An example of a chart that could be used is available at the end of this lesson plan.

Closure:

At the end of class ask the students how many different ways the class found to make fifty cents out of coins. See if any of the students' predictions were correct. Ask the students what the investigation showed them. Have the students talk about the different things they learned with the activity. For example, whether there were more ways to make fifty cents than the student predicted or which combinations they used. (There are 48 different ways to make the 50¢).

Assessment:

Students will create a booklet with the different ways to make \$0.50 by drawing and writing which coins are needed to make the sum. The students will also be tested on their logic of making different amounts of money through one-on-one interviews during class and through an end of unit worksheet that has students draw amounts of money with the use of different combinations of coins.

Adaptations for Students with Special Needs:

Since this lesson is planned for first graders who are just beginning to learn about counting coins in school, I would ensure that there are plenty of manipulatives available for the class. The students will also be working in small groups to solve the problems, so they will have help from peers. Additionally, this activity will be used as enrichment for the entire class. All of the students will have had practice with counting coins, and doing place value transitions for pennies, dimes, and quarters. With a basic understanding of coins and their values, the students can work through the problems with partners, the groups, or with the aid of teachers. For students that need additional help, I would plan to redo or review the activity during the hands-on math period that the class has on Wednesday morning.

Virtual Coin Manipulatives found at: http://www.eduplace.com/kids/mw/manip/mn_k.html

Practice At Home with this site: <http://www.funbrain.com/cgi-bin/cr.cgi?A1=s&A14=easy&country%5Busa%5D.x=39&country%5Busa%5D.y=58>

Sources:

MATH, Grade 1 Teacher's Edition, Volume 2. Scott Foresman-Addison Wesley, 2000. Chapter 9: Money.

Math Surf. (2007). Retrieved February 27, 2007, from <http://www.mathsurf.com>.

Making 50¢

Directions: Using pennies, nickels, dimes, and quarters find out how many different ways there are to make fifty cents or 50¢. Chart the different answers in this table. List the number of coins used for each solution and check to make sure the amount is equal to 50¢.

	Penny 1¢	Nickel 5¢	Dime 10¢	Quarter 25¢	Does this answer equal 50¢?
Solution 1:					
Solution 2:					
Solution 3:					
Solution 4:					
Solution 5:					
Solution 6:					
Solution 7:					
Solution 8:					
Solution 9:					
Solution 10:					
Solution 11:					
Solution 12:					
Solution 13:					
Solution 14:					
Solution 15:					
Solution 16:					