Collection of Coins
2nd Grade

Lesson Components

Lesson Objectives: Students will be able to recognize the value of coins in order to show multiple combinations of coins to represent a given value; as well as count a collection of coins less than one dollar.

Language Objectives: Students will use the new vocabulary to share strategies (verbal and written) to create and/or count a given value using a variety of coins.

Prior Learning Required: Skip counting by 5's, 10's. Students know the name and values of the coins.

Standards(Texas Essential Knowledge and Skills):

2.5 Number and Operations. The student applies mathematical process standards to determine the value of coins in order <u>to solve monetary transactions.</u>

   2.5A determine the value of a collection of coins up to one dollar.
   2.5B use the cent symbol, dollar sign, and the decimal point to name the value of a collection of coins.

Essential Questions:
- What do you know about a penny, nickel, dime, quarter?
- How do you find the total value of a group of coins?
- What strategies do you use to count a collection of coins?
- Can you show more than one collection of coins to represent a specific value?

Vocabulary

penny, nickel, dime, quarter, cent, total value, cent sign, dollar, dollar sign, decimal point

Lesson Preparation

- Chart paper
- 2 sets bags of a collection of coins labeled A-H (a total of 16 bags with different coin sets). Each bag should have a different collection of coins that have a total value less than $1.00.
- Bag of Coins (plastic or real) enough for each group of students to have one bag. It should contain at least 20 pennies, 20 nickels, 10 dimes, 4-5 quarters.
- Interactive math journal

Anchors of Support

Use the cardstock coins provided to have students help in the creation of a money anchor chart as shown below:

Create several anchor tools of coins taped to unifix cubes indicating the coin's value for students who need to use as a reference.

Differentiation strategies
Provided several anchor tools of coins taped to unifix cubes indicating the coin's value for students who need to use as a reference.

Lesson Cycle

Engage

- Read Shel Silverstein poem "Smart" (attached)
- Ask: Why is this poem silly?
- Ask: Have you ever had to pay for something with coins?
- Ask: How did you know what coins to use?
- Explain that the students are going to learn about counting a collection of coins and how to represent the value in a written manner.
- Ask: Can you tell me what you know about coins?
- Ask: How can you tell the coins apart? (Allow time for students to respond)
- Using the bag of coins, ask a student to put their hand in the bag and select a coin. They should keep their hand in the bag and describe what they feel. Students guess what coin is in their hand. Repeat this process with two to three different students.
- Work with the students to create an anchor chart about the coins (penny, nickel, dime, quarter).

Exploration

- Put the students in cooperative groups of 3-4 students.
- Explain to them they will each get the opportunity to count groups of coins. Give each group one bag of coins (with enough coins for each student to make 25¢ and 50¢.)
- Direct the groups to pour their bag of coins in the middle of their group.
- Ask: What do you know about the coins in your bag? Groups discuss coins and their characteristics.

- o Ask the students to each show you a way to make 25¢. Allow time to respond and discuss their combinations. A student could also come to the projector and show their combination.
- o Ask: Is there more than one way to show 25¢? Allow time to discuss as a class the different ways demonstrated by the students.
- o Repeat process with 50¢
- o Ask: What are the multiple ways to write the value ($0.50, .50, 50¢). When you are in a store how have you seen it written?
- o Chart what the students tell you. Also chart the different combinations the students made for 50¢

Explanation

- o Put students in groups of 4 (or keep in same groups).
- o Give each group the bag of coins labeled A, B, C, D or E, F, G, H (enough for each child to have one.)
- o Explain to them they will count the coins in each bag and fill out the recording half sheet. They should write the total value in at least two different ways. They can work together to count the collections or individually depending on their level of understanding.
- o Teacher monitors students and interacts asking questions like "What strategy are your using to find your total value?" "How do you know it is _____cents?"

Teacher's note: Teachers should be looking for how the students see the coins and what make sense to them for how to count the collection. Some students will have ability to skip count by like coins and then switch to another value within the collection. (i.e. 10, 20, 30, 35, 36, 37, 38 cents) Other students might also count by creating groups of 10 (a quarter and nickel is 30 cents, then count on with the leftover dimes, then add the pennies, etc). Students do not have to always start with the largest coin value. Some students may need the unifix cube anchor others may not.

- o If more time/practice is needed, groups can exchange the A-D set with the E-H set.

Elaboration
o Journal entry / Interactive Math Notebook- Ask students to represent 75¢ in their journal. Encourage them to show more than one way to represent the value. Also ask them to write the value using the multiple ways ($0.25, .25, 25¢) o Allow time for the students to "turn and talk" to observe the journals and the different ways the students represented the value of 75¢. Students should turn to each other and compare their strategies for making 75¢. o Teacher asks: Did any one create a different combination than your partner? Explain how it was different from your partner. o If time allows, direct the students to go on a "gallery walk" observing the interactive journals in the class.
Formative Assessment
o Teacher observes students counting coins during the explanation piece as well as while they work in their journals/interactive notebooks. o Make note of now they are counting (ordering value, by tens & fives, using anchor chart or unifix cube anchor). o Pay specific attention to the ability to write the total value in more than one way as well as counting the collection of coins with accuracy.

Name_____

For each bag write two different ways to represent the total value.

Bag	1st representation	2nd representation
A		
B		
C		
D		
E		
F		
G		
H		

Coin Chart

Penny 1¢	Nickel 5¢
Dime 10¢	**Quarter** 25¢

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