*Mathematics Instructional Plan – Kindergarten*

# Coins and Socks

Strand: Measurement and Geometry

Topic:Identifying and describing a penny, nickel, dime, and quarter

Primary SOL:K.7The student will recognize the attributes of a penny, nickel, dime, and quarter and identify the number of pennies equivalent to a nickel, a dime, and a quarter.

Related SOL:K.1, K.10, K.11b, K.12

## Materials

* Chart paper (four, sheets)
* Penny, nickel, dime, and quarter for the teacher (real coins can be projected with a document camera or large proportional cutouts can be used)
* Penny, nickel, dime, and quarter for each child (real preferred but can be plastic)
* Socks – one for each child (old but clean socks are fine)

## Vocabulary

*attribute, describe, dime, nickel, penny, quarter*

## Student/Teacher Actions: What should students be doing? What should teachers be doing?

1. Display a penny, nickel, dime, and quarter. Ask students to tell you what these objects are and how they are used. Ask whether anyone knows the name of each coin. Write the name of each coin at the top of a piece of chart paper. You will be creating an anchor chart for each coin with the help of your students.
2. Pass out a sock containing each of the four coins to each student. Explain to students that they are going to use their scientific observation skills to describe each of the coins. Begin with the penny. Show the penny and ask students to find the coin that looks the same. Students can place the other coins back in the sock. After checking to be sure that each student has the penny, ask students to begin describing the penny. As students suggest an attribute, add that idea to the anchor chart using both words and pictures. Use the following questions, if necessary, to notice the following ideas: *What is the shape of the coin? What is the color of the coin? What is on the front of the coin? What is on the back of the coin? How does the edge of the coin feel?* If a student suggests that the penny is worth 1 cent or notices those words on the back of the penny, add it to the chart. However, if no students bring it up, do not discuss its value at this time. The value of each coin will be a focus for another lesson.
3. Repeat with the nickel, dime, and quarter, having students take only that coin out of the sock and recording their observations on the anchor chart. This activity can be spread out across two or more days, depending on the amount of time you have and the attention span of your class.
4. Next, have students take all four coins out of the sock and lay them on top of the sock. Ask students to compare the size of the coins and add words and pictures to your anchor charts about each coin’s size. (Some classes may use “little” to describe the dime, “big” to describe the quarter, and “medium-sized” to describe the penny and the nickel. Others may use smallest, or tiny, small, medium, and big. Use whatever words and ideas your students suggest.)
5. With all four coins on top of the sock, ask: *What is the same about all of the coins?* (the shape, heads on all of them) *What is different*? (color, size, bumpy or smooth edge, whose head is on the coin, what is on the back of the coin, etc.) Point to these ideas on the anchor charts as students are making their comparisons.
6. Play “Find the Coin.” With each students’ coins still visible, call out attributes and have students find and hold up a coin that has that attribute. Questions might include: *Find a coin that is round. Find a coin that is brown. Find a coin that is bumpy around the edge. Find a coin that is little.* Each time, name the coins that fit that attribute and point to the correct anchor chart. After several rounds, instead of naming an attribute, call out the name of a coin, and have students hold that coin up. Finally, have students place the coins in the socks. Play again, but this time limit your questions to attributes that students can feel as students must try to find the correct coin without seeing it. Call out the name of a coin for students to feel in their socks to try to find. Each time, ask students to tell how they decided which coin to pull out of the sock.
7. Finally, students can be paired. One student can pull out a coin and the other student must find the same coin. Students name the coin and describe it before putting it back in the sock. They repeat this activity as many times as time allows.
8. Have students put all of the coins back in their sock. As you collect the socks, ask students to name a coin and tell you one thing about it.

## Assessment

### Questions

* + What can you tell me about a penny? A nickel? A dime? A quarter?
  + Which coins have \_\_\_\_\_\_? (use any attribute)

### Journal/writing prompts

* + Draw a picture of each coin. Write its name next to it.
  + Draw the coins in order from the smallest coin to the largest coin. (physical size, not value)
  + Sammi found a coin that was bigger than a dime but smaller than a quarter. What could Sammi’s coin be?
  + I have a silver coin in my pocket. Which coin could be in my pocket? (use any attribute)

### Other Assessments

* + Show a coin. Ask the student to name it and describe it.
  + Provide a bowl of coins. Ask students to sort the coins by type (pennies, nickels, dimes, and quarters). Have students name the coins.

## Extensions and Connections (for all students)

* After sorting coins by type, students can create an object graph and count and record the number of each type of coin.
* The sock activity can be repeated frequently as a whole-class activity or can be placed in a station for partners to play.
* Create task cards that can be used at stations. Students turn over task cards, and using a bowl of coins, complete each task on small plates (one plate for each task) or a large mat divided into sections for each task. Task cards may say things like: “Show 3 pennies.” “Show 5 dimes.” “Show 2 silver coins.” “Show 4 brown coins.” “Show a coin with a bumpy edge.” (Pictures can be included to help non-readers.)
* Discuss how coins are used to purchase items we need and want. (History and Social Science SOL K.7b)
* Discuss the presidents pictured on the coins – especially George Washington and Abraham Lincoln – and why their pictures might be on the coins. (History and Social Science SOL K.1a and K.9)

## Strategies for Differentiation

* Use fewer coins to compare and describe at one time.
* Provide individual anchor charts with visual cues for the various coins.

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