Race to a Dollar or Two!

Strand:	Measurement and Geometry
Topic:	Counting, comparing, and representing coin values

Primary SOL: 2.7 The student will
    a) Count and compare a collection of pennies, nickels, dimes, and quarters whose total value is $2.00 or less; and
    b) Use the cent symbol, dollar symbol, and decimal point to write a value of money.

Related SOL: 2.1b, 2.1c, 2.2a

Materials

- Race to a Dollar or Two recording sheet, one per pair (attached)
- Race to a Dollar or Two Game Board, one per student (attached; copy on cardstock or place in a protective sleeve)
- Pennies, nickels, dimes, quarters, dollar bills whose value is 100–200 cents (one set per pair of students)
- Number cubes (one per pair)

Vocabulary

bills, change, cent, dime, dollar, equal to, equivalent, fives, greater than, less than, nickel, ones, penny, quarter, tens, twenty-fives, value

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

1. Have students review coin values and make statements about how they compare to one another. For instance, hold a dime in one hand and a quarter in the other; ask students the value of each coin, and ask them to make a statement comparing the value (i.e., "the dime has a value less than the quarter" or "the quarter has a value that is greater than the dime").

2. Introduce the game to the students by playing as a whole class or as teacher vs. class. Use one game board for the class and one game board for the teacher. (See directions in 4-6 below.)

3. Students should work with a partner. Explain that students will play a coin-value game called "Race to a Dollar or Two." Give each pair two game boards (one for each player), one recording sheet (if desired), one number cube, two $1 bills, and a coin bag containing a collection of pennies, nickels, dimes, and quarters whose value is 100–200 cents (depending on whether they will race to $1 or $2). It may be appropriate to have students play the game a few times before having them record the values on the recording sheet.

4. Each group puts its coin collection in the center of the play area. Players take turns rolling the number cube and collecting the number of pennies shown on the cube. All coins collected must be openly displayed in front of the player who holds them. Players

place their coins on the game board and make exchanges as needed. After each turn, each player states:

I have _____ (dollars/cents). It is *greater than, less than or equal to* _____ (dollars/cents).

The player then records the total value of money on the shared recording sheet.

5.   When a player is able to make an exchange to get a coin of greater value (e.g., five pennies for a nickel, two nickels for a dime, two dimes and a nickel for a quarter, etc.), they must do so. If a player fails to make an exchange during their turn and the failure is noted by the other players, the player loses a turn.
6.   Play continues until a player has four quarters (or eight quarters) and exchanges them for the dollar bill(s).

Assessment

- **Questions**
  - Should a player ever have three dimes (or seven pennies or three nickels, etc.) at any time during the game? Why, or why not?
  - If you add 10 pennies more to your final score, how much money would you have? If you subtracted five pennies from your final score, how much would you have?

- **Journal/writing prompts (include a minimum of two)**
  - Write about the game you played. Describe how much more money one player had at the end of the game than the other player or players had.
  - Explain how this game helped you learn about counting money. Describe another game you could create that involves counting and exchanging money.

- **Other Assessments (include informal assessment ideas)**
  - Circulate and observe students as they play. Make note of any student who seems to be struggling with the exchanges, as well as students who may be ready for more challenging amounts of money.

Extensions and Connections (for all students)

- Extend the game to amounts larger than $1 or $2 (i.e., first to $1.50, $2, $5).
- Modify the game by allowing each player to have only five turns or 10 turns. The player with the greatest amount of money after five turns or 10 turns wins.
- Reverse the game so that players start with a $1 bill, and the first player to "spend" all their money wins.
- Modify the game by allowing players to use more than one number cube.

Strategies for Differentiation

- Have students play "Race to a Dime" (using pennies, nickels, and dimes only) or "Race to a Quarter" and then build up to greater amounts.
- Provide a chart that provides a list of coins and their equivalents (e.g., one penny = 1 cent).

- Provide an "exchange sheet" that lists money exchanges (e.g., a picture showing five pennies = one nickel, two nickels = one dime, etc.).
- Provide a sentence frame such as, "I have _____ (dollar/cents). It is *greater than, less than or equal to* _____ (dollar/cents)."
- Provide a hundreds chart that has a picture of a nickel on every multiple of five, a dime on every multiple of 10, and a quarter on every multiple of 25 in order to provide visual cues for students.
- Redirection and corrective feedback should be given throughout lesson.

Note: The following pages are intended for classroom use for students as a visual aid to learning.

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Round	Player 1 – _____ *Value*	Player 2 – _____ *Value*

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