

## Chapter 5

# Money

Counting coins deepens students' understanding of place value while bolstering their arithmetic skills. Beyond the obvious benefit of helping in merchant exchanges, becoming proficient with coin equivalency lays a foundation for students to understand the coherence of less familiar conversions and later fractions. Just as four quarters is the same as one dollar, four quarts is the same as one gallon, and 4-fourths equals one whole. Seven quarters is one dollar and three quarters, seven quarts is one gallon

and three quarts, and

$$4 \text{ Quarters} = \$1 \rightarrow 4 \text{ qt} = 1 \text{ gal} \rightarrow 4 \text{ fourths} = 1$$

7-fourths is one whole  
and 3-fourths.

$$7 \text{ Quarters} = \$1, 3 \text{ Quarters} \rightarrow 7 \text{ qt} = 1 \text{ gal } 3 \text{ qt} \rightarrow 7 \text{ fourths} = 1\frac{3}{4}$$

Similarly, 127 cents  
can be expressed in

$$127¢ = \$1.27 \rightarrow 127 \text{ cm} = 1 \text{ m } 27 \text{ cm} \rightarrow 127 \text{ hundredths} = 1\frac{27}{100}$$

compound units (\$1.27) in the same way that 127 centimeters and 127-hundredths can be converted to 1 meter 27 centimeters and  $1\frac{27}{100}$ , respectively.

Beyond practical applications, counting coins tends to be a fun activity for students because the drills are centered on relatively easy computations related to objects that they see and use outside of school.

Consider the following script before delivering coin-counting drills.

- T: Count by ones to ten. (Write as students count).  
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.  
T: Count by one penny to 10 pennies. (Write as students count.)  
S: 1 penny, 2 pennies, 3 pennies, 4 pennies, 5 pennies, 6 pennies, 7 pennies, 8 pennies, 9 pennies, 10 pennies.  
T: Count by 1 cent to 10 cents. (Write as students count.)  
S: 1 cent, 2 cents, 3 cents, 4 cents, 5 cents, 6 cents, 7 cents, 8 cents, 9 cents, 10 cents.  
T: (Move away from the board.) Count by pennies again. When I raise my hand stop. Try not to look at the board.  
S: 1 penny, 2 pennies, 3 pennies, 4 pennies.

T: (Raise hand.) 4 pennies is how many cents?  
S: 4 cents.  
T: Continue.  
S: 5 pennies, 6 pennies, 7 pennies, 8 pennies, 9 pennies, 10 pennies.  
T: (Raise hand.) 10 pennies is how many cents?  
S: 10 cents.  
T: Count down from ten pennies.  
S: 9 pennies, 8 pennies, 7 pennies, 6 pennies.  
T: (Raise hand.) 6 pennies is how many cents?  
S: 6 cents.  
T: Continue.  
S: 5 pennies, 4 pennies, 3 pennies, 2 pennies, 1 penny, 0 pennies.  
T: Let's see if you're up for a challenge. I want you to count by pennies again. This time, I want you to say the amount of cents every other number like this. 1 penny, 2 cents, 3 pennies, 4 cents. Get the idea? Start with pennies and try not to look at the board.  
S: 1 penny, 2 cents, 3 pennies, 4 cents, 5 pennies, 6 cents, 7 pennies, 8 cents, 9 pennies, 10 cents.  
T: How many pennies is 10 cents?  
S: 10 pennies.  
T: Count backwards the same way starting at 10 pennies.  
S: 10 pennies, 9 cents, 8 pennies, 7 cents, 6 pennies, 5 cents, 4 pennies, 3 cents, 2 pennies, 1 cent, 0 pennies.