LESSON 10 | Worktext pp. 21–22, 28 | Correlated Math Reviews pp. 19–20

Objectives

- Count out the amount of money needed to purchase an item
- Count back change from a purchase

Teacher Materials

- Money Kit
- Price Tags Pattern, page IA5 (CD)
- Cashier's Drawer, page IA6 (CD) (optional)
- A coffee cup—$2.49
- A playground ball—$3.25
- A jump rope—$1.78
- A set of flash cards—$4.67
- A box of markers—$7.80
- A packet of hot chocolate mix—$0.30
- Fact family flashcards: 8-9-17, 9-9-18, and previously memorized facts

Student Materials (to be shared by 2 students)

- Money Kit
- Cashier's Drawer, page IA6 (CD)
- Price Tags, page IA7 (CD) (cut apart)

Preparation

Prepare 1 copy of Price Tags Pattern, page IA5. Write on the price tags the prices of the 6 items listed above and attach the appropriate price tag to each item.

You may want to prepare an enlarged copy of the Cashier's Drawer, page IA6, to demonstrate counting back change during this lesson, or you may want to prepare a Cashier's Drawer transparency if overhead money is available.

Note

The half-dollar and other currency not frequently used in daily life have not been included in the Money Kit.

Practice and Review

Fact families: 8-9-17, 9-9-18

Use fact family flashcards to review the addition and subtraction facts in these fact families and those from previous lessons.

Practice facts 8–10 minutes daily.

Teach for Understanding

Count out money needed to purchase an item

1. Display the 6 priced items.
2. Choose a student to select an item and to pay for it using the fewest possible bills and coins from your Money Kit. Direct him to count aloud as he displays each bill and coin that he needs to purchase the item. (e.g., coffee cup *2 dollars, 1 quarter, 2 dimes, 4 pennies; $1.00, $2.00, $2.25, $2.35, $2.45, $2.46, $2.47, $2.48, $2.49*)
3. Continue the activity until all items are purchased.

Count back change by *counting on* coins

➤ When you buy an item with cash, do you usually pay the exact amount or do you pay with a larger amount and receive change? *Answers will vary, but elicit that people usually pay with a dollar amount that is greater than the total bill.*

➤ How would you define the amount of change you receive? *Elicit that it is the difference between the total amount owed and the amount you gave the clerk.*

1. Explain that when you make change you begin counting with the total amount owed and *count on* coins—pennies, then nickels or dimes, then quarters. First, *count on* pennies until you get to the nearest 5- or 10-cent value. Next, *count on* dimes and/or nickels until you get to the nearest quarter value. Last, *count on* quarters until you reach the nearest whole dollar value.

> At the hardware store, the total amount that Gary spent for a paintbrush was $1.34. He gave the cashier $2.00. How much change did Gary get back?

➤ What was Gary's total bill? *$1.34*

2. Write $1.34 for display.

➤ How much money did Gary give to the cashier? *$2.00*

Display 2 one-dollar bills from the Money Kit. Separately from the 2 one-dollar bills, display 4 each of quarters, dimes, nickels, and pennies for the students to refer to when determining which coins to use to make change.

➤ Beginning at $1.34, what is the next greater value to the nearest 5- or 10-cents? *$1.35*

➤ Which coin would you *count on* to $1.34 to make $1.35? *penny* How many pennies would you *count on*? *1*

Display 1 penny beside the $1.34. Point to the amount due and then to the penny as you lead in *counting on* the penny: $1.34, $1.35.

➤ Which quarter value greater than $1.35 do we want to get to? *Elicit $1.50.*

➤ Using the fewest possible coins, what coins would you *count on* to $1.35 to make $1.50? *1 nickel and 1 dime*

Display 1 nickel and 1 dime beside the penny. Explain that you can *count on* either coin first (i.e., the dime and then the nickel or the nickel and then the dime). Point to the amount due and then to each coin as you lead in *counting on* the coins both ways: $1.34, $1.35, $1.45, $1.50; and $1.34, $1.35, $1.40, $1.50.

➤ Now what coins would you *count on* to get to $2.00, using the fewest coins possible? *2 quarters*

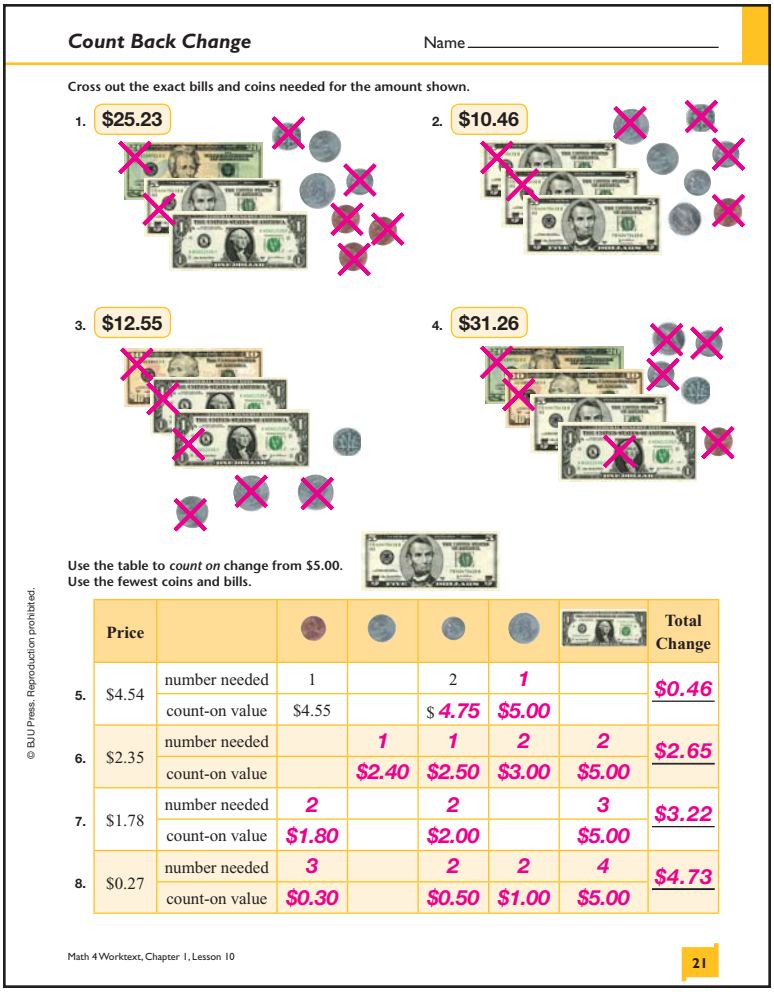
Display 2 quarters beside the penny, nickel, and dime. Point to the amount due and to each coin as you *count on* the change both ways: $1.34, $1.35, $1.40, $1.50, $1.75, $2.00; and $1.34, $1.35, $1.45, $1.50, $1.75, $2.00.

➤ How can you determine how much change Gary received? *Count the total value of the coins.*

Choose a student to point to each coin as he counts aloud the total value. *$0.66*

3. Arrange the students in groups of 2. Distribute a Cashier's Drawer worksheet, one set of price tags, and a Money Kit to each group. Guide the students in placing the money in the Cashier's Drawer, similar to a cashier's drawer.
4. Distribute the Price Tags (page IA7) for these Total Purchase amounts. Instruct each pair of students to take turns playing the role of the cashier and the role of the person making a purchase. Direct each cashier to begin by displaying a given price tag.

Total Purchase	Amount Given to Cashier	Total Change
$2.96	$3.00	*$0.04*
$0.42	$1.00	*$0.58*
$3.14	$4.00	*$0.86*
$4.57	$5.00	*$0.43*



Count Back Change Name _____

Cross out the exact bills and coins needed for the amount shown.

1. $25.23
2. $10.46
3. $12.55
4. $31.26

Use the table to *count on* change from $5.00.
Use the fewest coins and bills.

	Price							Total Change
5.	$4.54	number needed	1		2	1		$0.46
		count-on value	$4.55		$4.75	$5.00		
6.	$2.35	number needed		1	1	2	2	$2.65
		count-on value		$2.40	$2.50	$3.00	$5.00	
7.	$1.78	number needed	2		2		3	$3.22
		count-on value	$1.80		$2.00		$5.00	
8.	$0.27	number needed	3		2	2	4	$4.73
		count-on value	$0.30		$0.50	$1.00	$5.00	

Use your Money Kit.
Use the fewest coins and bills for the purchase.
Write the number of each coin or bill needed.

1. Ella bought a hair bow for $3.84.
   3 | 3 | 1 | 4
2. William bought a new model airplane for $8.37.
   1 | 3 | 1 | 1 | 2
3. Sarah bought a cookbook for $14.95.
   2 | 4 | 3 | 2

Write the value of the set of money.

4. $0.65
5. $1.00

Circle the digit in the place listed.
Write the value of the circled digit.

6. Hundred Thousands place 4,865,930 — 800,000
7. One Thousands place 3,294,568 — 4,000
8. One Millions place 5,210,390 — 5,000,000

Write the numbers in the *even* or *odd* blanks.

9. Even: 342, 910, 54
   597 342 85
   691 910 54
10. Odd: 597, 85, 691

Complete Daily Review j on page 28.

(***Note:*** Leave the Money Kits and the Cashier's Drawer worksheets distributed for the next activity.)

➤ **When using the fewest coins possible to make change, what is the maximum number of pennies you would use to make change? How do you know?** ***4; 5 pennies can be traded for 1 nickel.***

➤ **What is the maximum number of nickels you would use? How do you know?** ***1; 2 nickels can be traded for 1 dime.***

➤ **What is the maximum number of dimes you would use? How do you know?** ***2; elicit that 3 dimes would exceed the amount of a quarter and that 30 cents could be made with 1 nickel and 1 quarter.***

➤ **What is the maximum number of quarters you would use? How do you know?** ***3; 4 quarters could be traded for one dollar.***

Count back change by *counting on* dollars

1. Write for display $7.00.
2. Tell the students that making change using whole dollars is similar to making change using coins. Explain that you begin counting with the total amount owed and *count on* whole dollar amounts until you reach five-, ten-, or twenty-dollar values using the least possible number of bills.

➤ **What bill would you use to purchase a bicycle tire for $7.00 if you didn't have that exact amount?** ***ten-dollar bill or twenty-dollar bill***

Display a ten-dollar bill.

➤ **How much change would you get back if you gave the cashier $10.00? How do you know?** ***$3.00; elicit that the cashier would count on one-dollar bills from $7.00 until he reached $10.00.***

Say together the amount due; then display the 3 one-dollar bills as you lead in *counting on* the change: *$7.00, $8.00, $9.00, $10.00.*

Remove the ten-dollar bill and display 1 twenty-dollar bill. Display one-dollar bills and a ten-dollar bill as you lead in *counting on* the change: *$7.00, $8.00, $9.00, $10.00, $20.00.*

➤ **How much change would you get back if you gave the cashier $20.00?** ***$13.00***

➤ **Could the cashier have given you 3 one-dollar bills and 2 five-dollar bills rather than 3 one-dollar bills and 1 ten-dollar bill? Why?** ***Yes; 2 five-dollar bills are equal to $10.00.***

3. Explain that while different combinations of money can be used to make a given amount, you want the students to use the least possible number of bills and coins.
4. Distribute the Price Tags for these Total Purchase amounts. Instruct the students to role play as in the previous activity.

Total Purchase	Amount Given to Cashier	Total Change
$6.00	$10.00	*$4.00*
$5.00	$20.00	*$15.00*
$3.00	$20.00	*$17.00*
$2.00	$5.00	*$3.00*

5. Follow a similar procedure to guide the students in counting back change by *counting on* coins and dollars for a total purchase of $4.37 with $10.00 given to the cashier ***$5.63*** and a purchase of $3.72 with $5.00 given ***$1.28.***

Worktext pages 21–22, 28 (j)