

# 6: Learn to Earn When You Tend to Spend



## OBJECTIVES

Students will explain the meanings of spending and earning and associate the correct mathematical function with each one. Students will also make change up to a dollar.



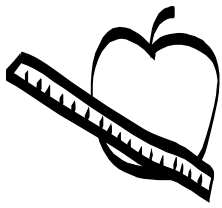
## MATERIALS

- 1 overhead transparency (or photocopy) of any state quarter reverse
- 1 overhead projector
- 1 class map of the United States
- Chalkboard or chart paper
- Chalk or markers
- 1 overhead transparency of the “Circulating Coin Images” page
- Copies of the “Circulating Coin Images” page
- Lunch trays
- Scissors
- Copies of the “A Wallet’s Worth” chart
- Copies of the “Coin Counter” page
- 1 overhead transparency of the “A Wallet’s Worth” chart
- 1 overhead transparency of the “Coin Counter” page
- Copies of the “Earning and Spending Scenarios” page



## PREPARATIONS

- Make an overhead transparency of:
  - Any new quarter reverse
  - The “Circulating Coin Images” page
  - The “Earning and Spending Scenarios” page
  - The “Coin Counter” page
  - The “A Wallet’s Worth” chart
- Cut out coin images from the “Circulating Coin Images” overhead transparency.
- Make copies of the “Circulating Coin Images” page (1 per pair).
- Make copies of the “A Wallet’s Worth” chart (1 per pair).
- Make double-sided copies of the “Coin Counter” page (1 per pair)



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# Learn to Earn When You Tend to Spend

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## GROUPINGS

- Whole group
- Pairs



## CLASS TIME

One 30- to 45-minute session



## CONNECTION

Mathematics



## TERMS AND CONCEPTS

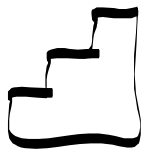
- Quarter
- Reverse (back)
- Spend
- Earn
- Cent (penny)
- Nickel
- Dime
- Wallet



## BACKGROUND KNOWLEDGE

Students should have a basic knowledge of:

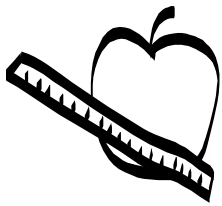
- Coin denominations
- Addition
- Subtraction
- Skip counting (or multiplication)



## STEPS

### Session 1

1. Describe the 50 State Quarters® Program for background information, if necessary, using the example of your own state, if available. Then display the transparency or photocopy of any state's quarter reverse. Locate this state on a classroom map. Note its position in relation to your school's location.
2. Briefly review with your students the worth of each coin (penny, nickel, dime, quarter).
3. Discuss with students the idea of earning and spending. Explain to students that by earning money, you are making more and by spending money, you will have less.

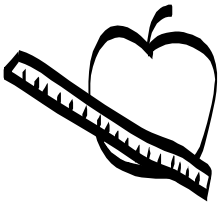


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# Learn to Earn When You Tend to Spend

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4. Ask students to pretend with you for a moment. Inform them that they have money in their wallets. Then, they earn some by performing household chores. Ask students how they would figure out how much money they had total. Guide students to respond that they will have to ADD the two amounts together and that will be their total money. Write on the board: EARN = ADD.
5. On the overhead projector, have a student model the following problem using the cutouts from the “Circulating Coin Images” page. Ask: “If I have 10 cents and I earn 25 cents, how much money do I have?”
6. Invite the student to manipulate the images on the overhead projector, showing that they have 35 cents because they earned money.
7. Have students pretend that they have money in their pocket and then they spend some on ice cream in the school cafeteria. Ask them how they could determine how much money they have left after purchasing the ice cream. Guide students to respond that they will have to subtract the spent money from their wallet money to find out their total money. Write on the board: SPEND = SUBTRACT.
8. On the overhead projector, have a student model the following problem using the cutouts from the “Circulating Coin Images” page. Ask: “If I have 80 cents and I spend 10 cents, how much money do I have?”
9. Invite the student to manipulate the images on the overhead projector, showing that they now have 70 cents because they spent money, which means they subtracted 10 from 80.
10. Separate the class into pairs and distribute to each pair one tray and one “Circulating Coin Images” page.
11. Have students cut out the images of the coins and sort them into piles according to value.
12. Distribute one “A Wallet’s Worth” chart, one “Coin Counter” (double-sided) page, and one “Earning and Spending Scenarios” page to each pair.
13. Explain to students that they are going to be pretending with coins. Instruct students to decide which student in the pair will be the counter and which one will be the banker. Remind students that they can take turns with each role. Explain to students that the banker will use the “A Wallet’s Worth” chart and the counter will use the “Coin Counter” page.
14. Display the first scenario on the “Earning and Spending Scenarios” overhead transparency. Using the overhead transparency of the “A Wallet’s Worth” chart and the “Coin Counter” page, model this example for the students. Students should follow along on their respective charts.



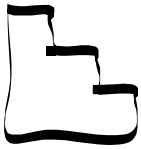
# Learn to Earn/Tend to Spend

15. Guide students through the rest of the examples using the “Earning and Spending Scenarios” overhead transparency.
16. In order to check students’ comprehension, review each situation using the overhead transparencies for the “A Wallet’s Worth” chart and the “Coin Counters” page.
17. Ask pairs how much money they had left over at the end of the game. Guide students to respond that they had 5 cents left over.



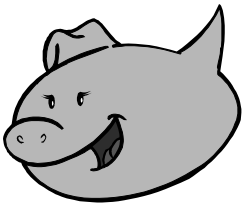
## ENRICHMENT/EXTENSIONS

- Each pair can create their own situation with which to challenge the rest of the class. Make sure the pair has an answer for their problem and have the class try it. Practice each group’s problem.
- For students who complete this assignment with ease, incorporate the 50-cent piece and/or the Sacagawea Golden Dollar into the lesson and create new scenarios for students to practice.



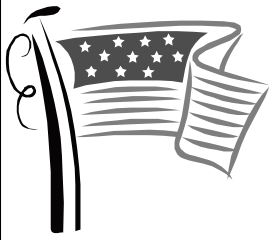
## DIFFERENTIATED LEARNING OPTIONS

- Identify struggling students when circulating throughout the classroom. Assign these students the role of “banker.” Using the manipulatives will help them understand the mathematical function they are performing.
- If appropriate, provide struggling students with calculators.



## HPC CONNECTIONS

Students can practice spending money and making change, while creating personalized greeting cards by playing the “Create A Card” game. Visit the Games section of the H.I.P. Pocket Change™ Web site to play now!



# Circulating Coins





# A Wallet's Worth

## Examples

WALLET

SUBTOTAL

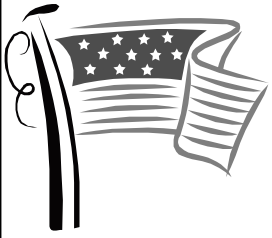
## Situations

EARNED

SPENT

SUBTOTAL

TOTAL



NAME \_\_\_\_\_

# Coin Counters

## EXAMPLE 1:

$$\frac{\quad}{\text{Wallet}} + \frac{\quad}{\text{Earned}} = \frac{\quad}{\text{Subtotal}}$$

$$\frac{\quad}{\text{Subtotal}} + \frac{\quad}{\text{Spent}} = \frac{\quad}{\text{TOTAL}}$$

## EXAMPLE 2:

$$\frac{\quad}{\text{Wallet}} + \frac{\quad}{\text{Earned}} = \frac{\quad}{\text{Subtotal}}$$

$$\frac{\quad}{\text{Subtotal}} + \frac{\quad}{\text{Spent}} = \frac{\quad}{\text{TOTAL}}$$

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## SITUATION 2:

$$\frac{\quad}{\text{Wallet}} + \frac{\quad}{\text{Earned}} = \frac{\quad}{\text{Subtotal}}$$

$$\frac{\quad}{\text{Subtotal}} + \frac{\quad}{\text{Spent}} = \frac{\quad}{\text{TOTAL}}$$

## SITUATION 3:

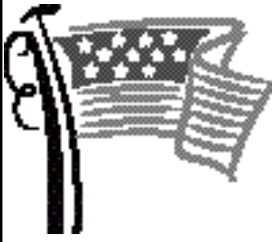
$$\frac{\quad}{\text{Wallet}} + \frac{\quad}{\text{Earned}} = \frac{\quad}{\text{Subtotal}}$$

$$\frac{\quad}{\text{Subtotal}} + \frac{\quad}{\text{Spent}} = \frac{\quad}{\text{TOTAL}}$$

## SITUATION 4:

$$\frac{\quad}{\text{Wallet}} + \frac{\quad}{\text{Earned}} = \frac{\quad}{\text{Subtotal}}$$

$$\frac{\quad}{\text{Subtotal}} + \frac{\quad}{\text{Spent}} = \frac{\quad}{\text{TOTAL}}$$



# Earning and Spending Scenarios

**Example 1:** You have 28¢ in your wallet. You wash the dishes and your mom pays you 13¢. At the store, you buy a pack of gum for 36¢. How much money do you have left?

**Example 2:** You have 5¢ in your wallet. Your parents pay you your allowance of 75¢. You buy your friend's baseball card for 65¢. How much money do you have left?

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**Situation 1:** You have 15¢ in your wallet. You clean your room and earn 45¢. Then, you spend 25¢ on a soda. How much money do you have left?

**Situation 2:** You have 35¢ in your wallet. You help your little sister tie her shoes and your parents give you 12¢. You also earn 44¢ for helping your neighbor with her groceries. At your older brother's football game, you spend 61¢ on a hot dog. How much money do you have left?

**Situation 3:** You have 30¢ in you wallet. After pulling weeds in the yard, you earn 63¢. You spend 52¢ on a comic book and 26¢ on a snack. How much money do you have left?

**Situation 4:** You have 15¢ in your wallet. You earn your allowance (75¢) and another 5¢ for making your own lunch. You go to the mall with your mom and buy a deck of playing cards for 50¢ and a colorful new pencil for 40¢. How much money do you have left?