Grade 4 Mathematics
Number and Number Relations: Lesson 22

Read aloud to the students the material that is printed in **boldface type** inside the boxes. Information in regular type inside the boxes and all information outside the boxes should **not** be read to students. Possible student responses are included in parentheses after the questions.

NOTE: The directions read to students may depend on the available materials. Read only those parts of the lesson that apply to the materials you are using.

Any directions that ask you to do something, such as to turn to a page or to hand out materials to students, will have an arrow symbol () by them.

Purpose of Lesson 22:

- In this lesson, the tutor and the students will
  - ✓ count change, and
  - ✓ solve word problems involving money.

Equipment/Materials Needed:

- Copies of Student Sheet 98 from Lesson 21 and Student Sheet 100
- Paper and pencils
- Chalkboard
- Play or real money or Student Sheet 98 from Lesson 21

Preparations before beginning Lesson 22:

- Run one copy of Student Sheet 100 for each student.
- Have paper and pencils available.
- If you do not have money available, use the money from Student Sheet 98, Lesson 21.

- Have some type of money available for students to use.

Say:

In today's lesson you are going to count change. One of the easiest and fastest ways to count change is to count up. Let's review counting up. Suppose I wanted you to count from $5 to $15. How could you do this? (You could count by $1's. Start at $5. Say 5, then count 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15. Or you could count by $5's. Start at $5. Say 5, then count 10, 15. Or you could count by $10. Start at $5. Say 5, then count 15.) **Any of these ways, you get a count of $10, either ten one-dollar bills, two five-dollar bills or one 10-dollar bill. You could also use a combination of the bills.** Note: This activity is much easier for students if they can actually use money.

Say:

Let's try another example of counting up. Suppose you want to buy an ice cream for 37¢. If you give the clerk $1.00, how much change should you receive? Let's count up.
Write the following amounts on the board.

37 →	38, 39 40	count by pennies	3¢
40 →	50	count by dimes	10¢
50 →	$1.00	count by 50-cent pieces	50¢
			63¢

Did anyone count differently? Some may have said something like below.

37 →	38, 39 40	count by pennies	3¢
40 →	50	count by dimes	10¢
50 →	75, 1.00	count by quarters	50¢
			63¢

Some may have used 6 dimes and 3 pennies. In all cases, the answer would be 63¢.

- Give students the following problem.

Say:

Danny bought tennis balls that cost $4.82, including tax. How much change should he get back from a ten-dollar bill? How would you work this problem?

Begin with $4.82. Count coins to get to the next dollar: 4.82, 4.83, 4.84, 4.85, 4.90, 5.00 = 18¢

Count the dollars: $5.00, $10.00 = $5.00

The change would be $5.18.

Give students Student Sheet 100. Students should discuss how they counted the change in each problem.

Answers:

1. 27¢ 2. 11¢ 3. 50¢ 4. $3.88

5. No, it should have been $7.77.

6. $0.91 7. $15.91 8. 45¢ 9. 37¢

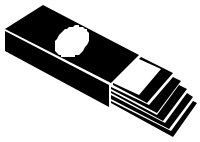
10. No, it should have been $0.56.

Have one student summarize today's lesson. Counting change is extremely important in the real world.

Student Sheet 100 (Number Relations: Lesson 22)

pail and shovel set 75¢	soft drink 89¢	pack of gum 23¢	bunch of balloons 36¢






Use the prices of the items above to answer the following questions. Explain how you counted the change.

1. Jeff bought a pack of gum and paid with a 50¢ piece. What was his change?

2. Spencer bought a soft drink and paid with a one-dollar bill. What was his change?

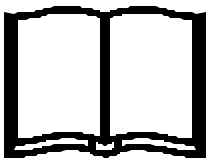
3. Mia bought two pail and shovel sets and paid with two one-dollar bills. What was her change?

4. Sandy bought a soft drink and a pack of gum and paid with a five-dollar bill. What was her change?

5. Hugo bought one of each of the items. He paid with a ten-dollar bill and got $7.87 in change. Was his change correct?

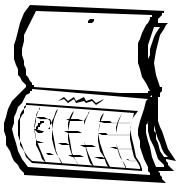
Student Sheet 100 (Number Relations: Lesson 22) continued

Use the prices of the items below to answer the following questions. Explain how you counted the change.



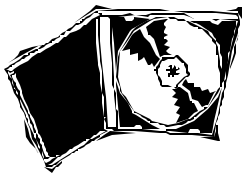
Book

$7.81



Calendar

$2.55



Compact Disk

$11.63

Sunglasses

$4.09

6. Dee bought sunglasses and paid with a five-dollar bill. What was her change?

7. Leroy bought the same sunglasses as Dee, but he paid with a twenty-dollar bill. What was his change?

8. Sabrina bought a calendar and paid with three one-dollar bills. What was her change?

9. Dirk bought a new CD and paid with two one-dollar bills and one ten-dollar bill. What was his change?

10. Kelly bought a compact disk and a book. She paid with a twenty-dollar bill and got $0.44 in change. Was her change correct?