

# Counting cash

Students practice handling money through simulated purchases and sales transactions.

## Learning goals

### Big idea

Knowing how to make change can help you prevent costly and embarrassing mistakes and help make sure you're in control of your money.

### Essential questions

- Why is it important to be able to conduct efficient and accurate money transactions?
- What strategies can I use to accurately calculate my change after making a purchase?

### Objectives

- Practice counting out the correct amount of change after a simulated purchase
- Practice giving back change in the fewest number of bills possible

### What students will do

- Participate in simulated sales transactions.
- Calculate correct change using the fewest number of bills.


### NOTE

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Please remember to consider your students' accommodations and special needs to ensure that all students are able to participate in a meaningful way.

#### KEY INFORMATION

Building block:

 Financial habits and norms

Grade level: Middle school (6-8)

Age range: 11-14

Topic: Earn (Making money), Spend (Buying things)

School subject: Fine arts and performing arts, Math, Social studies or history

Teaching strategy: Simulation

Bloom's Taxonomy level: Apply, Analyze, Evaluate, Create

Activity duration: 45-60 minutes

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#### National Standards for Personal Financial Education, 2021

Spending: Standard 4-1, 8-3

These standards are cumulative, and topics are not repeated in each grade level. This activity may include information students need to understand before exploring this topic in more detail.

## Preparing for this activity

- Consider displaying the poster, “[Learning about coins and dollar bills](https://pueblo.gpo.gov/CFPBPubs/CFPBPubs.php?PubID=13473)” before doing this activity.
  - You can order the poster for free here: <https://pueblo.gpo.gov/CFPBPubs/CFPBPubs.php?PubID=13473>
- Print copies of all student materials for each student, or prepare for students to access them electronically.
- Print the fake money in this guide single-sided and cut the bills apart (one set for each pair of students).
  - Note: You can have student pairs cut out their fake money at the beginning of this activity.

### What you’ll need

#### THIS TEACHER GUIDE

- Counting cash (guide)  
[cfpb\\_building\\_block\\_activities\\_counting-cash\\_guide.pdf](https://pueblo.gpo.gov/CFPBPubs/CFPBPubs.php?PubID=13473)

#### STUDENT MATERIALS

- Counting cash (worksheet)  
[cfpb\\_building\\_block\\_activities\\_counting-cash\\_worksheet.pdf](https://pueblo.gpo.gov/CFPBPubs/CFPBPubs.php?PubID=13473)
- Fake money (in this guide)

## Exploring key financial concepts

For many young people, their first jobs involve cash transactions. Workers who handle money must know how to give customers the correct change so their employer doesn’t lose money and to maintain their customers’ trust. Counting back change can help make sure workers give the right amount of money in the fewest bills possible. Learning this skill can help young people prepare for potential future jobs and help them make sure they’re in control of their money.

# Teaching this activity

## Whole-class introduction

- Distribute the “Counting cash” worksheet to each student.
- Pick one student volunteer to participate with you in a transaction scenario.
  - Call the student to the front of the room and give them a \$20 bill in fake money.
  - Ask them to pretend that they’re buying cookies at a bake sale for \$4.
  - Once the student hands you the \$20 bill, tell the class that it is important to keep that bill out where both of you can see it so that there are no questions about how much money the customer gave you.
  - Demonstrate how to count back their change.
    - As you count, model the process by speaking out loud for each step you take: “Your change is \$16. That’s 10 (hand the student a \$10 bill), 15 (as you hand them a \$5 bill) and 16 (as you hand them a \$1 bill).”
- Pick another student volunteer to demonstrate another way to count back change.
  - Call the student to the front of the room and give them a fake \$10 bill.
  - Ask the student to pretend that they’re buying a bottle of water for \$1.
  - Once the student has paid with the \$10 bill, demonstrate how to count back their change using an alternative process.
    - To model the process, say the total of each denomination aloud as you count it out.
    - As an example: “You’ve given me a \$10 bill and the water was \$1. Let me give you your change. One is \$2 (give them a dollar). One is \$3 (give them another dollar). One is \$4 (give them a third dollar). One is \$5 (give them a fourth dollar). And five is \$10 (give them a \$5 bill).”
- Have students talk about how the two approaches differ.
  - Make sure they recognize that one method is essentially based on subtraction and will likely be the method they use if they’re relying on a calculator or digital cash register. The other is a type of addition starting with the cost of the item and adding until you get to the amount of cash they gave you.
  - Encourage them to try both methods when they act out their own scenarios.

### TIP

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Visit [CFPB’s financial education glossary](#) for terms and definitions you may find useful.

- If students seem confused, you can repeat the whole-group simulations a few more times before having them practice in groups.

## Individual and group work

- Ask the students to form pairs.
- Distribute a set of fake money to each pair.
  - Note: You may ask them to cut out their own money at the start of this part of the activity.
- Have pairs complete the practice scenarios on their worksheet.
- Ask students to work individually to complete the “Describing the process of making change” section of the worksheet, using the knowledge they gained in the practice scenarios.
- After students have completed the worksheet, use the answer guide to go over the answers as a class.

## Wrap-up

- Bring the class back together to discuss the activity and its real-world application.
- Answer any questions students may have.

## Suggested next steps

Consider searching for other [CFPB activities](#) that address the topics of earning, including making money, or spending, including buying things. Suggested activities include [“Paying for a pet”](#) and [“Bouncing ball money choices.”](#)

## Measuring student learning

Students’ answers on their worksheets and during discussion can give you a sense of their understanding.

This answer guide provides possible answers for the “Counting cash” worksheet.

**Keep in mind that students’ answers may vary.** The important thing is for students to have reasonable justification for their answers.

## Answer guide

### Practice scenarios

Scenario	Amount of change	Suggested types and number of bills
1	\$7	One \$5 bill and two \$1 bills
2	\$6	One \$5 bill and one \$1 bill
3	\$4	Four \$1 bills
4	\$16	One \$10 bill, one \$5 bill, one \$1 bill
5	\$22	One \$20 bill, two \$1 bills
6	\$25	One \$20 bill, one \$5 bill

### Describing the process of making change

Scenario	Amount of change	Suggested types and number of bills
1	\$13	One \$10 bill and three \$1 bills
2	\$63	One \$50 bill, one \$10 bill, and three \$1 bills
3	\$33	One \$20 bill, one \$10 bill, and three \$1 bills
4	\$24	One \$20 bill, four \$1 bills

## Fake money for practice scenarios

You can print this set of fake money to use for the practice scenarios on the worksheet. You can cut out the money yourself or have students do this in preparation for the activity. Each student pair will need a set.

### One set should include:

- 6 \$1 bills
- 2 \$5 bills
- 4 \$10 bills
- 2 \$20 bills
- 1 \$50 bill
- 1 \$100 bill

