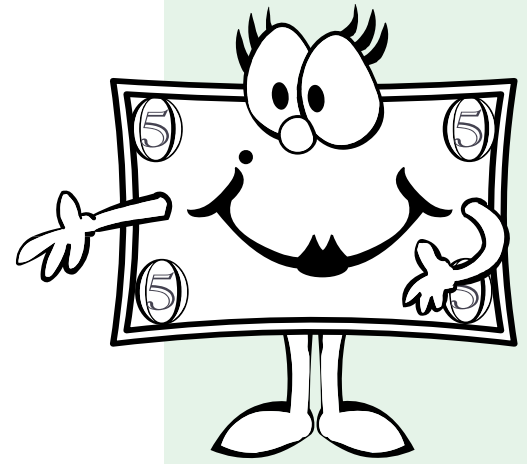


Grade Three

# Debt



## Overview

Students share the book *Four Dollars and Fifty Cents*, by Eric A. Kimmel, to learn about credit, debt, and interest rates. They write a story about credit and debt and complete worksheets on calculating simple interest on loans.

## Prerequisite Skills

Students should be able to add amounts of money written in decimal form.

## Lesson Objectives

Students will be able to:

- Define debt and credit
- Differentiate between single-payment credit and installment credit
- Describe methods creditors use to ensure debtors will repay them, including collateral
- Understand the concept of interest as the fee paid to a creditor on a debt
- Calculate simple interest on a loan and identify equal payments for a specified period of time

## Materials List

1. Book: *Four Dollars and Fifty Cents*, by Eric A. Kimmel (Holiday House, 1989)
2. Writing (or notebook) paper
3. Optional: drawing paper
4. Optional: thin black markers
5. Optional: crayons
6. Handouts: **Calculating Interest** worksheet (two pages)

## Content Standards

The activities in this lesson correlate to national standards in economics, math, and language arts. See the end of this lesson for content standards information.

## Vocabulary

borrow    debtor  
collateral    incentive  
credit    installment credit  
creditor    interest  
deadbeat    lend  
debt    single-payment credit

## Large-Group Activity

### Materials

- Chalkboard (must be easily seen by whole class)
  - Writing (or notebook) paper
  - Optional: drawing paper, thin black markers, crayons
1. For this lesson you will need to stand near the chalkboard in front of the class to share the book *Four Dollars and Fifty Cents*.
    - Say:

**Today we're going to be talking about lending and borrowing.** On the chalkboard, write "lend" and "borrow," next to each other.

**Have you ever borrowed anything from someone? What kinds of things have you borrowed?** Allow students to share personal experiences.

**Have you ever lent someone something that they didn't pay back? How did that make you feel? Did you wish you had a way to make them pay you back?**

**I'm going to read a book about a cowboy who owed money to a lot of people and never wanted to pay them back. It's called *Four Dollars and Fifty Cents*, and it was written by Eric A. Kimmel. Show the cover of the book.**

**This book was illustrated by Glen Rounds. Later you'll get a chance to see the illustrations more closely, but I think you can tell from where you're sitting that Mr. Rounds used a black marker for his outlines and smudged crayons to add color to his illustrations. They work very well for this funny book.**
    - Read the book aloud to the class. Be sure to allow the entire class time to see each picture.
  2. Briefly discuss the book with the class.
    - **The very first sentence of this book describes the main character: "It's a terrible thing to call a cowboy a deadbeat, but in Shorty Long's case it was true." What is a deadbeat?**

A deadbeat is someone who doesn't pay his or her own way, or one who owes money without paying it back.
    - **Why wouldn't Shorty pay back the Widow Macrae?**

If he paid her back, he would have to pay everyone he owed.
    - **How did Shorty try to get out of paying Widow Macrae?**

He pretended to be dead.
    - **Do you think this would have worked to save Shorty?**

No, he couldn't play dead forever.
    - **How did the Widow outsmart Shorty and his friends?**

She took Shorty and the coffin and planned to watch him all night long.

- **When the robbers ran away scared, what happened to their money?**  
They left the money behind.
- **Did Shorty try to keep the money?**  
No, Shorty was a deadbeat, not a thief.
- **What happened to the money?**  
Shorty and the Widow turned the money in and got a reward.
- **Did Shorty use his reward money to pay the people he owed?**  
No.

3. Discuss today's economic concepts: credit and debt.

- Introduce the new vocabulary.

**Shorty owed money to everybody from Big Oscar the Blacksmith to Widow Macrae. When you owe someone, you are said to be “in debt.”** Write the word “debt” on the chalkboard under the word “borrow.”

**What was the amount of the debt that Shorty owed the Widow Macrae?**

Four dollars and fifty cents.

**Someone who owes a debt is called a debtor.** Write “debtor” on the chalkboard beside the word “debt.”

**When you lend money to someone, or you sell him or her something without taking the money right then, you are giving that person credit.** Write the word “credit” on the chalkboard below the word “lend.”

**And, you are called a creditor.** Write “creditor” beside “credit.”

**In the story, who was the debtor?**

Shorty.

**Who was the creditor?**

Widow Macrae.

**Were there any other creditors in the story?**

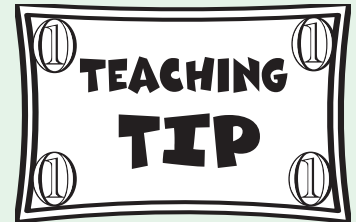
Big Oscar the Blacksmith and others who weren't named.

- *Types of Credit and Collateral*

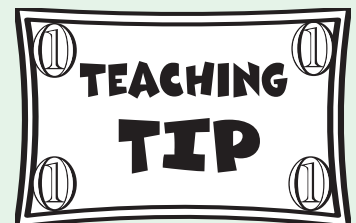
**At the beginning of the story, the Widow Macrae told Big Oscar: “How am I gonna keep this place going if folks won't pay their bills?” Why do you think shopkeepers like Widow Macrae and Big Oscar give credit to people? After all, they need money, too.** Allow students to speculate on the reasons for extending credit.

Some possible reasons they may suggest are:

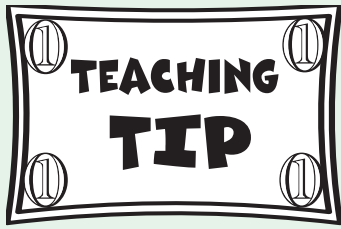
- Shopkeepers may want to help people who are in financial trouble.
- They might know someone will be getting a paycheck in a couple of days, so they will sell them the item now but expect payment later.



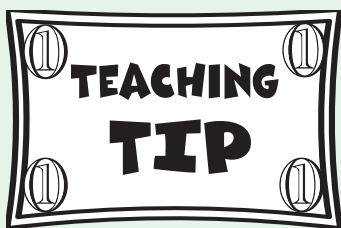
Point out the silent letter “b” in “debt,” and the suffix “-or” in “debtor” and “creditor.”



If students confuse these two words, pair them with “borrow” and “lend”: who was the **debtor**, or the **borrower**?



You can use car buying as another example. The bank uses the car as collateral.



This is a **very** simplified explanation, introducing the concept of interest as a fee while avoiding percents and compounding rates.

- They may sell expensive items that people can't afford to pay for all at once, but they could pay for a little at a time. If they want to sell them, they have to allow people to make payments.

Explain: **Sometimes shopkeepers allow people to buy “over time,” which means you might buy something very expensive, and make payments for it every week or every month. This is called **installment credit**.** On the chalkboard, write “installment credit.”

**Another type of credit is called **single-payment credit**.** Write “single-payment credit” on the chalkboard. **This means you get a good or a service now, and pay for it later. Your parents use this kind of credit to pay for water. You use the water that comes from your faucets whenever you need it; then you pay for it later.**

**Which type of credit did the Widow Macrae give Shorty?**

Single-payment.

**Did she have any way to force Shorty to pay her back?** Accept any answers.

Students may say that she could refuse to serve him any more biscuits, she could turn him in to the sheriff, or they might think of others.

**One method creditors use to make sure debtors pay them back is **collateral**.** Write “collateral” on the chalkboard.

**Collateral is an item you give the creditor to hold until you pay back the loan. It can be an actual object, like a pair of boots, or it can be a promise to give something up.** Provide the following examples:

- For example, the Widow Macrae might have taken Shorty's favorite harmonica. She could lock it up in her safe and keep it until Shorty paid the four dollars and fifty cents.
- Or, Shorty could have given the Widow his promise that if he didn't pay the money on time, she could take his horse. That way, Shorty could still use his horse until the debt was due, but he would be more inclined to pay her back if he knew he could lose his horse.

### ○ *Figuring Interest*

**Let's say you are a bank. One of the things you do is loan money to people—you extend **credit**. What does the bank get out of it? Why lend people money?** Encourage class discussion, and lead students to the fact that banks get “paid” for lending money.

**You're right, creditors like banks charge a fee for lending money. This fee is called **interest**.** Write “interest” on the chalkboard.

**Not only does charging interest help banks earn money, but it also works as another way to get debtors to pay them back sooner. This is how interest works.** Explain “simple interest” to students, in the following way (but don't use the term “simple interest”):

- **Pretend you borrowed \$100 from a bank.** Write “\$100.00” on the chalkboard, away from the vocabulary list.

- **The bank charges you interest every month. Let's say they charge you \$10.00 every month that you don't pay them back.**
- **That means, if you pay the bank back in one month, you must pay them an extra ten dollars. You borrowed \$100, but you have to pay back \$110.**
- **What would you owe the bank if you had a two-month loan?**  
You would add ten dollars for each month, owing them a total of \$120.
- **For each month of the loan, ten dollars will be added to the amount you borrowed.** If necessary, show the interest due on a three- or four-month loan.

**Do you think Shorty would have paid Widow Macrae back if the amount he owed kept going up each month?**

4. Proceed with the large-group activity.

- While you are working with small groups in the following activities, you might want to have the rest of the students complete a writing activity. Point out the vocabulary words taught in this lesson that you've listed on the chalkboard during large-group discussion. The students must use all of the vocabulary words in the story. Write the following story starters on the board (or an overhead transparency) for students to choose from, and read them aloud.
  - **This is the story of the time when Long John Orange the pirate borrowed five gold coins from Captain Tricky Bill, and how Bill tricked Long John into paying back more than he borrowed.**
  - **When Deadbeat Dave rode into the town of Money Falls, the shopkeepers had to get together to stop his deadbeat ways.**
  - **Once upon a time Cinderella's ball was over, and the Wicked Stepmother demanded that the Fairy Godmother pay back all the items she borrowed on the night of the ball, including the ribbons for the dress, the pumpkin, the horses, and the dog.**
- If time allows, have students create illustrations for their stories. Put the book *Four Dollars and Fifty Cents* near the art supplies so students can examine the crayon illustrations of Glen Rounds. If possible, provide them with thin black markers and crayons.

## Small-Group Activity: Calculating Interest

### Concepts Taught

Interest as a Fee Paid to a Creditor

### Materials

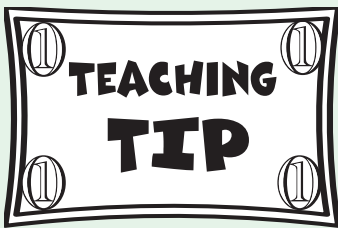
- Chart paper or chalkboard
- Handout: **Calculating Interest** worksheet

1. Review calculating simple interest.

- Say:

**In the large-group activity we saw how to figure out how much you owe with interest. Let's try another example together.** Draw a table like the one below on the chart paper or chalkboard.

Month	Amount Borrowed	Interest (25¢)	Total Owed
1	\$5.00		
2			
3			
4			



Remind students that 25¢ can also be written as \$0.25. Show the addition problem on the board if needed.

**Let's pretend you borrowed five dollars from the bank, and each month you don't pay it back, the bank charges you 25 cents interest.**

**That means if you pay the bank back after one month, you will owe . . .** Allow someone in the group to provide the answer: \$5.25. Fill in last two columns in the first row of the table: Interest—0.25; Total Owed—\$5.25.

**If you promised to pay the money back in two months, what will you owe?**

\$5.50.

**How do you get that figure?**

Another 25 cents is added the second month. Make sure to copy the same amounts in the “Amount Borrowed” and “Interest (25¢)” columns each time. Only the “Total Owed” amount will change on a simple interest chart.

- Continue with the third and fourth months, until the table is completely filled in:

Month	Amount Borrowed	Interest (25¢)	Total Owed
1	\$5.00	0.25	\$5.25
2	\$5.00	0.25	\$5.50
3	\$5.00	0.25	\$5.75
4	\$5.00	0.25	\$6.00

**If you needed four months to pay back your creditor, how much did your debt cost you?**

\$1.00—You borrowed five dollars and paid back six dollars.

2. Continue the lesson with the **Calculating Interest** worksheet.

- Pass out the worksheets to the students and read the instructions at the top aloud. Work through at least the first part of the problem as a group (filling in the first row of the table), and if students seem to understand the activity, let them fill in the remainder of the table independently or in pairs.

Discuss the answer to the first question (\$5.58), and make sure students have filled in the table correctly:

Month	Amount Borrowed	Interest (27¢)	Total Owed
1	\$4.50	\$4.50 <u>+0.27</u>	\$4.77
2	\$4.50	0.27	\$5.04
3	\$4.50	0.27	\$5.31
4	\$4.50	0.27	\$5.58

- Have students complete the rest of the worksheet. The correct answers are:
  2. \$3.42
  3. \$9.92

## Assessment

Check students' understanding by listening carefully to the responses they give during group discussions and on the **Calculating Interest** worksheet. Read through the stories students' wrote for the large-group activity to determine if the vocabulary words included were used correctly (or have students read their stories aloud to the class).

## Suggested Online Activity

**NOTE:** Teachers should preview all sites to ensure they are age-appropriate for their students. At the time of publication, all URLs listed here were valid. In addition, some Web sites provide lessons via pop-up screens, so you may have to disable your computer's pop-up blocker software to access them.

### **Debt Payment Maze**

This maze from YoungInvestors.com is provided by Columbia Funds Distributor, Inc., of Boston, Massachusetts. Print and duplicate the worksheet, then instruct students to find their way through the money maze, avoiding areas where they would spend more money and concentrating on areas where they can earn money to repay the loan. To complete the maze they must reach the "brother" they need to repay. Found at: [www.younginvestor.com/pdfs/PathToPayBack.pdf](http://www.younginvestor.com/pdfs/PathToPayBack.pdf).



## National Standards Correlations

### Economics

The activities in this lesson correlate to the following Voluntary National Content Standards in Economics, as determined by the National Council on Economics Education, found at: [www.ncee.net/ea/standards](http://www.ncee.net/ea/standards).

#### Standard 2: Marginal Cost/Benefit

Students will understand that: effective decision making requires comparing the additional costs of alternatives with the additional benefits. Most choices involve doing a little more or a little less of something; few choices are “all-or-nothing” decisions.

K–4 Benchmarks:

- A cost is what you give up when you decide to do something.

#### Standard 4: Role of Incentives

People respond predictably to positive and negative incentives.

K–4 Benchmarks:

- Rewards are positive incentives that make people better off.
- Penalties are negative incentives that make people worse off.
- Both positive and negative incentives affect people’s choices and behavior.

#### Standard 10: Role of Economic Institutions

Institutions evolve in market economies to help individuals and groups accomplish their goals. Banks, labor unions, corporations, legal systems, and not-for-profit organizations are examples of important institutions. A different kind of institution, clearly defined and enforced property rights, is essential to a market economy.

K–4 Benchmarks:

- Banks are institutions where people save money and earn interest, and where other people borrow money and pay interest.

### Mathematics

In addition to economics, the activities in this lesson also correlate to the following *Principles and Standards for School Mathematics*, from the National Council of Teachers of Mathematics, found at: [standards.nctm.org/document/index.htm](http://standards.nctm.org/document/index.htm).

#### Numbers and Operations Standards

Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

3–5 Benchmarks:

- Recognize and generate equivalent forms of commonly used fractions, decimals, and percents.

Compute fluently and make reasonable estimates.

- Develop and use strategies to estimate computations involving fractions and decimals in situations relevant to students’ experience.



## Algebra Standards

Represent and analyze mathematical situations and structures using algebraic symbols.

3–5 Benchmarks:

- Express mathematical relationships using equations.

Use mathematical models to represent and understand quantitative relationships.

- Model problem situations with objects and use representations such as graphs, tables, and equations to draw conclusions.

Analyze change in various contexts.

- Investigate how a change in one variable relates to a change in a second variable.
- Identify and describe situations with constant or varying rates of change and compare them.

## Language Arts

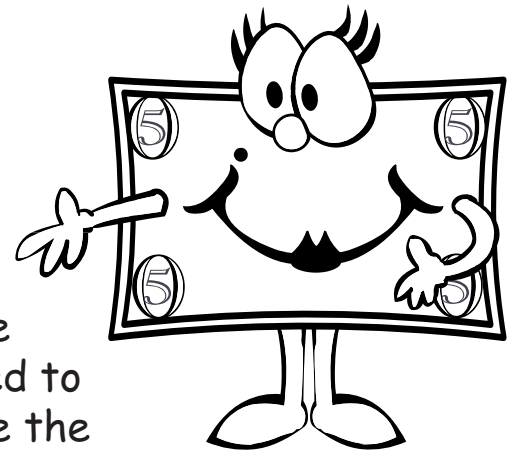
This lesson, based on the children’s book *Four Dollars and Fifty Cents* by Eric A. Kimmel, also correlates to the following *Standards for the English Language Arts*, from the National Council of Teachers of English, found at:

[www.ncte.org/print.asp?id=110846&node=204](http://www.ncte.org/print.asp?id=110846&node=204)

1. Students read a wide range of print and non-print texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
3. Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).
5. Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

# Calculating Interest

Name \_\_\_\_\_

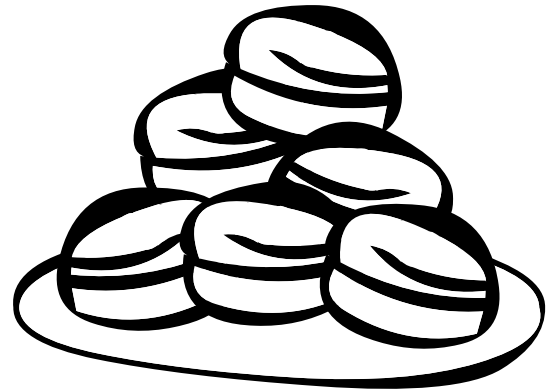


Shorty Long couldn't get credit anymore, so he had to go to the town bank whenever he wanted to buy something in the shops. Help Shorty figure the interest on his loans so he knows what his debt will cost him.

1. Widow Macrae's biscuits cost \$4.50. The bank charged 27¢ interest.

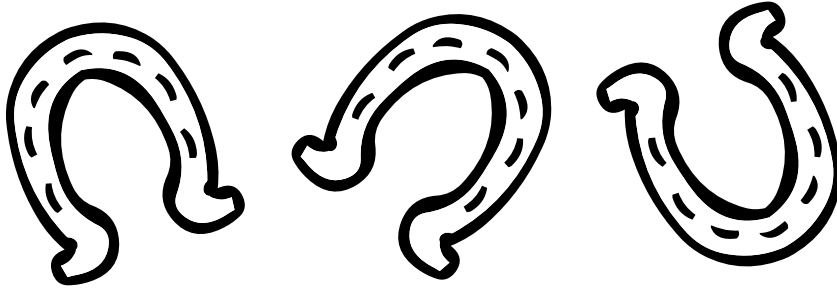
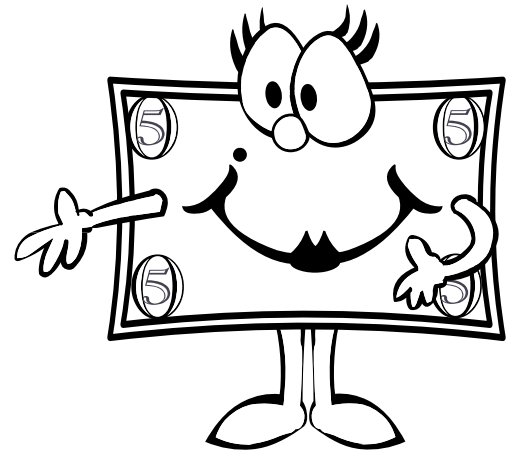
Month	Amount Borrowed	Interest (27¢)	Total Owed
1	\$4.50	$\begin{array}{r} \$4.50 \\ +0.27 \\ \hline \end{array}$	
2	\$4.50		
3	\$4.50		
4	\$4.50		

In four months Shorty owed \_\_\_\_\_ for those biscuits.



# Calculating Interest

Name \_\_\_\_\_



2. Big Oscar's horseshoes cost \$3.00. The bank charged 21¢ interest.

Month	Amount Borrowed	Interest (21¢)	Total Owed
1	\$3.00		
2	\$3.00		

In two months Shorty owed \_\_\_\_\_ for those horseshoes.

3. Grizzly Jones's cowboy boots cost \$8.00. The bank charged 32¢ interest.

How much would Shorty owe the bank in six months?

