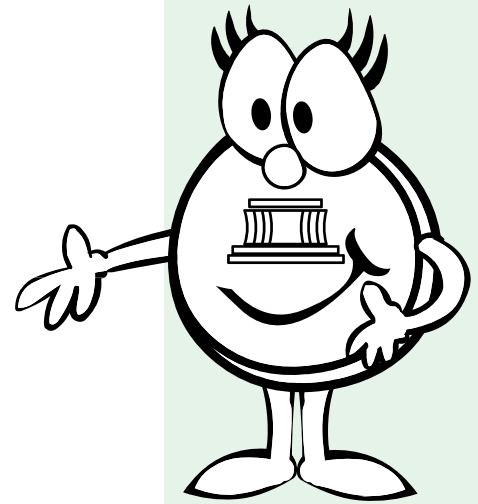


Grade One

How Many/ How Much



Overview

Students share the book *Monster Money*, by Grace Maccarone, to learn to recognize coins, know their value, and develop understanding of the concept of money as a medium of exchange.

Prerequisite Skills

None.

Lesson Objectives

Students will be able to:

- Understand that money makes it easier to trade
- Recognize and know the value of pennies, nickels, dimes, and quarters
- Produce multiple ways to make an amount of money

Materials List

1. Book: *Monster Money*, by Grace Maccarone (Hello Reader! Math Books) (Scholastic, Inc., 1998)
2. Chart paper or chalkboard
3. Handouts:
 - **Coin** posters (penny, nickel, dime, quarter)—use color copies if possible
 - **U.S. Coins** worksheet

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

bills
coins
dime
memorial
nickel
penny
quarter
worth

Large-Group Activity

Materials

- Book: *Monster Money*
- Chart paper or chalkboard
- Crayons
- Optional: brown, copper, gray, and silver crayons
- Handouts:
 - **Coin** posters (penny, nickel, dime, quarter)—use color copies if possible
 - **U.S. Coins** worksheet

1. Gather students to share the book *Monster Money*.

○ Say:

How many of you have pets? What kind of pet do you have? Where did you get your pet—from a pet store, or a pound, or did someone give it to you? Allow students to share their experiences.

I'm going to read a book to you about monsters buying monster pets. All of the pets at the monster pet store cost the same amount of money, but the monsters use different coins to buy them. The book is called *Monster Money*, by Grace Maccarone. The funny pictures of the monsters were drawn by Marge Hartelius. This is a rhyming book. Listen for the rhymes while I read the story.

Let's see what pets are for sale at the monster pet store.

○ Read the book aloud to the class, stopping to allow all students to see the pictures.

2. Briefly discuss the book with the class.

○ **How much did the monster pets cost?**

All of the pets cost 10 cents.

○ **What kinds of pets were sold in the pet store?**

There were several creatures for sale, but don't expect students to remember all of them. The book includes frogs, slugs, bugs, flies, fleas, bees, beetles, bats, rats, crabs, jellyfish, smelly fish, and other jiggly, wiggly, and giggly things.

○ **Are these the types of creatures you expect to see in a pet store? Name one animal from the book that people might want as a pet.**

Encourage open discussion. Some of the above creatures are found in real pet stores, including fish and (hermit) crabs.

○ **If you were a monster, which of these pets might you want to buy?**

Accept any answers.

3. Discuss today's economic concepts: the role of money and coin identification and values.

○ *The Role of Money*

Who can tell me what **money** is? Write the word “money” on the chalkboard or chart paper. Allow students to provide answers.

Money is something we use to buy things. In the old days, before money was invented, people used to trade for everything they wanted. If a farmer needed a hammer, he might trade a basket of eggs for the hammer. Can you think of a reason that trading didn’t always work well? Allow open discussion. Guide students to one or two of the following problems with trade:

- People might not agree that a basket of eggs is worth a hammer.
- It might be hard to carry around the things you had to trade.
- It might be hard to find someone that wanted what you had.

After a while, people realized that they needed a better way to exchange, or trade, for the things they needed. They needed to have something that everyone wanted. It had to be worth the same amount to everyone, and it had to be easy to carry. Different groups of people tried lots of different things, but finally money was invented.

Nowadays, money is used all over the world to buy things. Lots of countries have their own money that looks different from ours, but we’re going to look more closely at the money we use in the United States.

○ *Coin Identification*

Money can be made of two different materials—what is money made of?

Some money is made of paper, and some is made of metal.

Paper money is called **bills, and metal money is called **coins**.** Write the words “bills” and “coins” on the board. **Bills are in dollar amounts, but most coins are worth less than a dollar. If bills are called dollars, what are most coins called?**

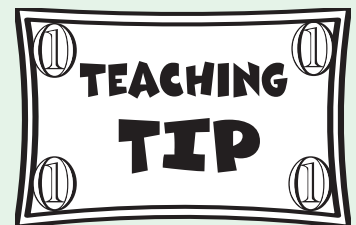
Cents.

Today we’re going to talk about coins that are less than a dollar. Can anyone name some coins?

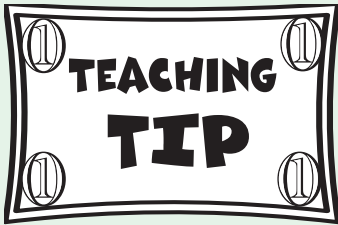
Allow students to call out coins if they can as you write them on the board under the heading “coins”: penny, nickel, dime, and quarter.

In the United States we have coins that are equal to one cent, five cents, 10 cents, 25 cents, and 50 cents. There are a couple of coins that are worth a dollar, but we’re not going to use them today.

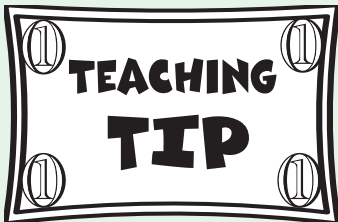
Let’s look at each of the coins, one at a time. Draw a chart on the board like the one on the next page, but leave the boxes blank. The rows should be wide enough to allow you to tape the coin posters in the first box, and the column headings should be large and easy to see.




This lesson doesn’t attempt to describe things (e.g., salt and seashells) that have been used as money throughout history.



First graders can't read most of these words, but graphic displays like this help visual learners mentally organize facts.



Keep in mind that you may have color-blind students in the class. Stress other identifying characteristics of coins.

Picture	Name and Amount	Color	President	On Back
	Penny = 1¢	Copper	Abraham Lincoln	Lincoln Memorial
	Nickel = 5¢	Gray ("nickel" colored)	Thomas Jefferson	Monticello OR Westward Journey™ Image
	Dime = 10¢	Silver	Franklin Roosevelt	A torch, an olive branch, and an oak branch
	Quarter = 25¢	Silver	George Washington	Eagle holding branch OR a state-based design

Tape the penny poster in the first section of the chart. **This is the penny. It's easy to spot a penny because it's the only coin of this color. Do you know what we call this color?** Students may guess "brown," but explain that this color is shinier than regular brown, and we call it "copper." Write "copper" in the proper area of the chart.

Optional: You may want to pass around a copper and a brown crayon at this time to allow students to tell the difference. To help nonreaders you might also want to tape a copper crayon in the "color" field of the chart.

A penny is worth one cent. The word "worth" means how much money it stands for. If you have one penny, you have one cent. Write "Penny = 1¢" in the chart.

Who can tell me the name of the man on the front of the penny? Abraham Lincoln. Write his name on the chart. Abraham Lincoln was the sixteenth President of the United States.

Every U.S. coin (except for those two one-dollar coins we mentioned) has a picture of a U.S. President on it. Knowing the Presidents' faces is another way to help you name the coins. NOTE: You may want to tell students that the dollar coins contain pictures of American women: Sacagawea and Susan B. Anthony.

Now let's look at the back of the penny. Can you see this building? This is a famous building called a memorial. This one is located in Washington, D.C. Have any of you visited there? This building is called the Lincoln Memorial, and it was built to honor President Abraham Lincoln, whose picture is on the front of the penny. Write "Lincoln Memorial" in the chart.

There are some words and sayings on every coin that can also help you identify them. The penny has the words "In God We Trust" and "Liberty" on the front. Other coins have different words.

If you look closely, you can also see a date on the front of the penny. Can you guess what this date means? Allow students to guess, then tell them that the date tells when that penny was made.

Continue filling out the chart for the nickel, dime, and quarter in this way. Mention the relative sizes of the coins, as well, and point out that the dime is smaller than the nickel and penny, but it is worth more.

NOTE: The quarter poster shows only the front side. Explain that this is because of the new state quarters that are being minted. Children must learn to identify the quarter from the pictures on the front because there are so many different backs. If the new nickels have become widely circulated at the time you use this lesson, you may wish to include that information in your lesson as well.

4. Introduce the Large-Group Activity: **U.S. Coins** worksheet.
 - Erase the money chart and remove the posters before you pass out the **U.S. Coins** worksheet. Read the instructions aloud and then allow students to work on them independently.

You might want to allow students to complete these worksheets while you work with small groups in the following activities.

Small-Group Activity: Money Challenge

Concepts Taught

Showing Equivalent Amounts with Different Coins

Materials

- Book: *Monster Money*
- Play money: pennies, nickels, dimes, and quarters

1. Explore equivalent sums in *Monster Money*.

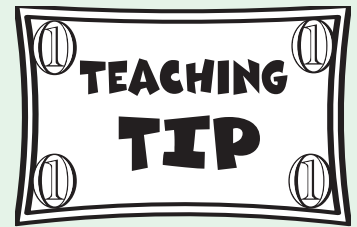
- Say:

Do you remember what all the pets in the monster pet store cost?

They all cost 10 cents.

Even though the pets all cost 10 cents, the monsters used different ways to make 10 cents. What is one way to make 10 cents? Allow students to suggest a method (e.g., one dime, 10 pennies), then locate a page in the book and reread the lines describing pets that were bought using those coins:

- Ten pennies: frog, slug, crab, wiggly thing
- Five pennies and one nickel: bug, bee, rat, smelly fish, giggly thing
- Two nickels: fly, flea, jellyfish
- One dime: beetle, bat, jiggly thing



There is no poster provided for the half-dollar. This coin isn't introduced until the second grade.

2. Discuss sets of coins.

- Return to the page describing the bug. **The book says that a bug costs five pennies and a nickel.** Lay out five pennies and one nickel in a row, in that order.

Return to the page describing the rat. **Then the book says that a rat costs one nickel and five pennies.** Lay out one nickel and five pennies in a row, in that order.

How are these two amounts different?

For the bug, the pennies are named first. For the rat, the nickel is named first.

Does the order of the coins change the amount of money?

No, the coins can be laid down in any order.

Take one of the rows of coins and rearrange them so that the nickel is in the middle. **Is this still 10 cents?** Yes.

3. Introduce the group activity: Money Challenge game.

- Divide the group into two teams. Place play money coins (pennies, nickels, dimes, and quarters) in the center of the table. Say:

I'm going to name an amount of money. The first team will use any coins to show that amount. Then the next team must use different coins to show the same amount. We'll keep going back and forth until one team can't think of a new way to show the amount.

Flip a coin to see which team goes first, then announce the amount: 20 cents. The first team works together to select coins that will equal that amount, laying the coins out in a neat row. Then allow the other team to try to find another way to show 20 cents.

Go back and forth until one team is stumped. Then name another amount, such as 15 cents, 9 cents, 25 cents, 27 cents, and so on. Keep the amounts under 50 cents.



Explain before beginning the game that rearranging the order of coins that have already been used doesn't count.

Additional Small-Group Activities: How Much? How Many?

The last five pages in the book *Monster Money* provide additional activities, suggested by mathematics education specialist Marilyn Burns, which can be used in the classroom. Any of these activities will enhance this lesson, but the activity named “How Much? How Many?” is especially appropriate for this lesson and requires only pennies, nickels, and dimes as materials.

Assessment

Check students' understanding by listening carefully to the responses they give during group discussions and on the **U.S. Coins** worksheet. Watch carefully to see if any students struggle with the tasks in the small-group activities.

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.

Learn about Bills

The Money Factory Web site for kids hosted by The Bureau of Engraving and Printing provides many games to help children learn about paper money. To help students learn to recognize U.S. currency by identifying the Presidents pictured on each, go to the Bucky's Portrait Studio activity at:
www.moneyfactory.com/kids/bport.html.

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 Economic Education, found at: www.ncee.net/ea/standards.

Standard 7: Markets—Price and Quantity Determination

Students will understand that: Markets exist when buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and services.

K–4 Benchmarks:

- A price is what people pay when they buy a good or service, and what they receive when they sell a good or service.

Standard 11: Role of Money

Money makes it easier to trade, borrow, save, invest, and compare the value of goods and services.

K–4 Benchmarks:

- Money makes trading easier by replacing barter with transactions involving currency, coins, or checks.

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.

Numbers and Operations Standards

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

PreK–2 Benchmarks:

- Count with understanding and recognize “how many” in sets of objects

Algebra Standards

Represent and analyze mathematical situations and structures using algebraic symbols

- Use concrete, pictorial, and verbal representations to develop an understanding of invented and conventional symbolic notations.
- Use mathematical models to represent and understand quantitative relationships.

Language Arts

This lesson, based on the children's book *Monster Money*, by Grace MacCarone, 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.

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).

United States Penny



United States Penny



United States Nickel



United States Nickel



United States Dime



United States Dime

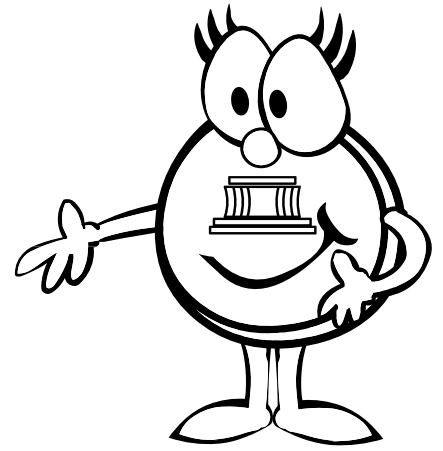


United States Quarter



U.S. Coins

Name _____



Draw a line to match the coin to its name, then write what it is worth on the line. Color the coins.

1.



_____ ¢

penny

2.



_____ ¢

dime

3.



_____ ¢

nickel

4.



_____ ¢

quarter