## Grade Two

## Market Prices



## Overview

Students share the book Arthur's Funny Money, by Lillian Hoban, to learn about business, price, and labor. They complete worksheets on projected income.

## Prerequisite Skills

Add and subtract two-digit numbers with and without renaming; and skip count quarters up to one dollar.

## Lesson Objectives

Students will be able to:

## 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.

Define market and price

- Differentiate between goods and services
- Count money by quarters up to five dollars


## Materials List

1. Book: Arthur's Funny Money (An I Can Read Book), by Lillian Hoban (HarperCollins, 1981)
2. Chart paper or chalkboard
3. Drawing paper
4. Crayons
5. Play money: quarters
6. Handout:

- Arthur's Bike Wash worksheet


## Vocabulary

goods
income
labor
markets
price
services

## Large-Group Activity

## Materials

- Book: Arthur's Funny Money
- Chart paper or chalkboard
- Drawing paper
- Crayons

1. Gather students in the reading corner to share the book Arthur's Funny Money.

O Say:
Did you ever try to buy something that you'd bought before, only to discover that it now costs more money? Today we're going to be talking about prices and how sometimes prices go up and sometimes they go down.
I'm going to read a book about Arthur, a chimpanzee who needs to buy a uniform for his Frisbee team, and what he learns about prices along the way. It's called Arthur's Funny Money, and it was written and illustrated by Lillian Hoban. What does the word "illustrated" mean? Ms. Hoban has also drawn pictures for a series of books about a raccoon named Frances-have you read any of those books? The book A Bargain for Frances, is another selection in the Personal Finance for Kids second-grade lessons.
Let's see what Arthur the chimpanzee learns about prices in this story.

O 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.

O What did Arthur want, and how much did it cost?
Arthur wanted a t-shirt and matching cap for his Frisbee team. They cost five dollars altogether.
O How did he decide to earn money to get his uniform?
He decided to wash bicycles for 25 cents each.
O What did he need to buy in order to start his business?
He needed soap and Brillo ${ }^{\circledR}$ pads.

## TEACHING

 TIPStudents may not be familiar with Brillo ${ }^{\oplus}$ pads so you might want to stop here and explain.

Do you think it was smart of Arthur to spend some of his money on stuff like soap when he was trying to make more money?

Allow students to discuss this. Guide them to understand that businesses must spend money on tools that will help them to make much more money.

Did Arthur charge 25 cents to every customer?
No, his price changed for every customer, for one reason or another. There is no need to go through these changes at this time.
3. Discuss this lesson's economic concepts: business, price, and markets.

- Review Goods, Services, and Business

Businesses sell goods and services. Write both terms on the chart paper or chalkboard. A good is a thing you buy and use. A service is something you pay someone to do for you. Was Arthur going to sell a good or a service? Arthur was selling a service-people would pay him to wash their bikes for them.

When Arthur decided to provide this service in order to make money, he started a business. What were some services Arthur decided not to do? Allow open discussion. Arthur didn't want to run errands, and he decided not to wash cars because the junior high kids were already doing that.

Once Arthur chose the service he was going to sell, what did he have to decide next? He had to decide how much to charge-what price to set on his service.

## - Markets and Price

When Arthur started his business, he and his customers made something called a market. Write the word "market" on the board.
Can anyone explain what a supermarket is? Allow volunteers to describe a supermarket. Write the word on the board and underline "_market."

In a supermarket, some people are selling things and other people are buying them. The same is true in other businesses. When people get together to trade money for goods or services, we call this a market.

Markets can change the prices on goods and services. Price is the amount of money you spend to buy or sell something. Write "price" on the chart paper or chalkboard.
Sometimes the customer forces prices to change, and sometimes the business decides to change the price. Both of these things happened in Arthur's Funny Money. Let's see how.

What price did Arthur set for his bike washing service? He set the price at 25 cents. You may need to return to the illustration of Arthur creating his sign on page 17 to refresh students' memory.

Let's take a look at what happened when the first customer came to Arthur's business. Reread pages 20 through 22, stopping when Norman says, "How's that for a deal?"

Norman wanted Arthur to wash one bicycle and one tricycle for 38 cents. Do you think that was a good deal? Write " 38 ¢ -25 ¢" on the board.

If Norman paid 25 cents for his bike, what was he offering to pay to get the tricycle washed? Work the subtraction problem to show that Norman wanted to pay 13 cents for the tricycle.
When Norman's dog ate the soap, he quickly offered to pay Arthur 42 cents to wash the bike and tricycle. Is that a better deal? How


If students need more review of goods and services, provide other examples for them to categorize.


Write the subtraction problems in columns on the board, but use cent signs, not decimals, to show the money.


The concepts of labor and income are covered in this lesson but the terms are not used.
much more money did Norman offer Arthur? If necessary, work the new subtraction problem, $42-25=17$, to show that Norman still wasn't paying Arthur the full price for his services. He only added 4 cents to pay for the soap the dog ate.

Why did Arthur accept Norman's offer? Allow students to speculate on Arthur's reasons. They should remember that Norman offered Arthur free advertising if he would take 42 cents-Norman and his brother put signs on their bicycle and tricycle.

Arthur's price changed for Norman. In this example the customer forced the price to change. Did Arthur change his price for anyone else? Why did he change his prices? Students should remember that Arthur's prices changed when Wilma, Peter, and John brought other vehicles to be washed.

Arthur allowed the customers to change his prices because he really wanted to make money. Did any other prices change in this story? Reread pages 47 and 48 to remind students how the price of soap went up at the store.

The price of soap went up. Who made this price change? In this case, the business changed the price of the soap, not the customer.

Did any prices go down? Reread the sign in the illustration on page 51.
The word "reduced" means the price has gone down. Why do you think the price of the window samples was less than the regular price of the $t$-shirt and cap? Sometimes samples get faded or dirty, so storekeepers will sell them for less money. Once again, the business changed the price of the goods, not the customer.
4. Introduce the large-group independent activity: business and price.

Draw a picture of a service you would like to do to earn money. In your picture include a sign that tells what price you would charge for your service.

Have students work on their drawings while you work with individual groups in the following small-group activity.

## Small-Group Activity: Good Business

## Concepts Taught

Labor and Income

## Materials

- Book: Arthur's Funny Money
- Chart paper or chalkboard
- Play money: at least 13 quarters for each student, plus pennies, nickels, and dimes
- Handout: Arthur's Bike Wash worksheet

1. Discuss labor in Arthur's Funny Money.

O Say:
Do you think Arthur worked hard in this story? Arthur worked very hard washing, scrubbing, and polishing all the vehicles in the story.

Let's add up all the different things that Arthur washed. Pass out copies of the Arthur's Bike Wash worksheet, and have students count the number of vehicles Arthur washed.

Arthur washed 13 vehicles. What did he do to wash them? Have volunteers describe Arthur's bike-washing steps. If necessary, reread page 44.

Why do most people do work? People do work to make money.
Do you think Arthur made enough money to pay for all his hard work? Accept any opinions.
2. Compute the potential income from Arthur's labors.

O Arthur was supposed to get 25 cents for each bicycle he washed, but he also washed other types of vehicles. Do you think he should have been paid 25 cents for washing the tricycle? How about the doll buggy and scooter and other things? Allow students to express their opinions. They will probably say that Arthur worked just as hard on the other vehicles, so he should have been paid for them, too.
Read the directions on the worksheet and provide students with quarters. Allow them to complete the worksheet activity. Watch to make sure all students are counting quarters correctly. Have them write the total amount on the line at the bottom of the page (\$3.25).
3. Compute Arthur's actual income.

We know that Arthur should have made $\$ 3.25$ for washing all those things. Let's see how much he really made. Write the following amounts on the chart paper as you list them for the group:
a. Norman-bike and tricycle:

42 ф
b. Wilma-bike, baby buggy, stroller, rocking horse:

34 ¢
c. Peter-bike, fire engine, sled, wagon: 36 ¢
d. John-bike, scooter, skateboard:

33\$
We can figure out how much this is by adding the numbers, but instead let's check it the way Arthur did. I'll let each of you count out one of these amounts, then we'll count all of the money together. Have four students take each of the amounts in a.-d. above, counting the amount in play money. Check their work to make sure they count correctly.
Now we'll push all this money together and sort it by coin types. Make rows of the accumulated quarters, dimes, nickels, and pennies.

Now count this money along with me. We'll start skip counting with the quarters. Count the money aloud, going slowly enough so that all students in the group can keep up.


You may have to model writing the money amount with decimal point and dollar sign for students.

## teaching TIP

If students wonder how
Arthur ended up with \$4.43, remind them that he already had some money in his bank.

## Arthur made $\$ 1.45$ washing those 13 vehicles. We saw on our worksheet that he should have been paid $\$ 3.25$. Do you think Arthur should be happy? Allow students to express their opinions.

## Assessment

Check students' understanding by listening carefully to the responses they give during group discussions and on the Arthur's Bike Wash worksheet. Have students share the drawings of their business and price from the large-group activity. They should be able to explain what they want and what they're willing to give up to get it.

## 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.

## What's My Job?

Kids Next Door, a division of the U.S. Department of Housing and Urban Development (HUD), offers this easy interactive game that allows students to read a job description and match it to a worker in the community. Found at: www.hud.gov/kids/whatsjob.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 Economics Education, found at: www.ncee.net/ea/standards.

## Standard 1: Scarcity

Students will understand that: Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.

K-4 Grade Benchmarks:

- Goods are objects that can satisfy people's wants.
- Services are actions that can satisfy people's wants.
- People's choices about what goods and services to buy and consume determine how resources will be used.


## Standard 7: Markets-Price and Quantity Determination

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.


## 5-8 Benchmarks:

- Market prices are determined through the buying and selling decisions made by buyers and sellers.


## Standard 11: The Role of Money

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

## K-4 Benchmarks:

- Money is anything widely accepted as final payment for goods and services.


## 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.
- Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers.
- Connect number words and numerals to the quantities they represent, using various physical models and representations.

Compute fluently and make reasonable estimates.

- Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculators.


## Algebra Standards

Understand patterns, relations, and functions

- Sort, classify, and order objects by size, number, and other properties.

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 Arthur's Funny Money, by Lillian Hoban, 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.
2. 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).

## Arthur's Bike Wash

## Name

Help Arthur figure out how much money he should have made in his bicycle washing business. Place a quarter on each vehicle below, and then count the quarters. Write the total
 amount on the line.

| Norman | Wilma | Peter | John | Little Brother <br> Tricycle |
| :---: | :---: | :---: | :---: | :---: |



How much money should Arthur have made? $\qquad$

