Overview

Students share the book *Pigs Go to Market: Fun with Math and Shopping*, by Amy Axelrod, to learn about price, choice, and comparative shopping. They examine the information provided on manufacturers’ coupons and play a “shopping spree” game.

Prerequisite Skills

Students should be able to read and write money amounts using dollar signs and decimal points.

Lesson Objectives

Students will be able to:

- “Read” coupons for important information on how they are used
- Use a calculator to keep an ongoing subtotal of multiple purchases, using decimals

Materials List

2. Chalkboard or chart paper
3. Newspaper Grocery Store flyers containing coupons—at least one
4. Manufacturer’s coupons—several (to pass around for students to see)
5. Calculators (one for each student in small groups)
6. One die
7. Timer or clock with a second hand
8. Paper and pencil for each student in small groups
9. Handout: The Parts of a Coupon worksheet
10. Optional: Candy to pass out at the end of the small-group activity

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

comparison
cost
coupon
discount
expiration date
expires
manufacturers
price
save
value
worth
Large-Group Activity

Materials

- Book: *Pigs Go to Market: Fun with Math and Shopping*
- Chalkboard or chart paper
- Newspaper Grocery Store flyers containing coupons—at least one
- Manufacturers’ coupons—several (to pass around for students to see)
- Handout: *The Parts of a Coupon* worksheet

1. Gather students in the reading corner to share the book *Pigs Go to Market: Fun with Math and Shopping.*

   - Say:
     
     I’m sure everyone in this class has been grocery shopping with an adult before. What’s your favorite part of a grocery or supermarket? Why do you like that best? Allow students to share their experiences and ideas.

     I’m going to read you a book called *Pigs Go to Market: Fun with Math and Shopping,* written by Amy Axelrod and illustrated by Sharon McGinley-Nalley. Ms. Axelrod has written several stories about this pig family, who always manage to have fun while they get into disorganized messes.

     Each book in the series is based on a different math concept. This book is about grocery shopping and tells what happens to the pig family when they went to the supermarket to buy some candy for a Halloween party.

     Let’s see what happens when the pigs go to the supermarket.

     - Read the book aloud to students. Pause at the end of each two-page spread and allow students to view the pictures.

2. Briefly discuss the book with the class.

   - Why did the pigs have to go to the supermarket?
     
     Grandma Pig and Grandpa Pig ate all of the candy. They needed more candy for their Halloween party.

   - Mrs. Pig won a five-minute shopping spree—what does that mean?
     
     Mrs. Pig was the store’s one-millionth customer, so as a prize, she got to keep anything she could fit in her shopping cart in five minutes.

   - The candy in the story has names that make you think of Halloween. What are some of the candies Mrs. Pig grabbed?
     
     Mrs. Pig grabbed six packs of Ghouly Drops, three bags of Jelly Spiders, four buckets of Pound o’ Pumpkins, two medium-sized boxes of Witches Brooms, one box of Red Hot Jumbos, and one economy-sized jar of Wiggly Worms.

   - Did Mrs. Pig grab anything besides candy? What else did she grab?
     
     Mrs. Pig also grabbed broccoli, cantaloupes, pumpkins, soups, and sauces.
Did the pigs have enough candy for the Halloween party?
No. The pigs ate all of the candy before they got home.

3. Discuss this lesson’s economic concepts: price, cost, shopping, and savings; and using coupons.

**Price, Cost, and Shopping**

Would you enjoy winning a five-minute shopping spree in a grocery store like Mrs. Pig did? What aisle of the store would you head to first? Allow students to share their opinions.

Did Mrs. Pig look at prices of the foods she put in her basket?
No, she selected food she and her family would like to eat.

Price doesn’t matter to you if you’re getting things for free. But on a regular shopping trip, price is very important. Why do people check prices before they buy things? Encourage students to speculate.

A price is the amount of money an item costs—the amount you must pay to buy it. Do all stores charge the same amount for the same items?
No, some items cost different amounts at different stores.

So, unless you’ve won a shopping spree and are getting your items for free, what do you do if you are a smart shopper? Write the words “Smart Shoppers . . . ” on the chalkboard or chart paper.

Smart shoppers check prices and buy the items at the lowest possible amount.

**Savings**

There are many ways to save, starting with paying low prices for the things we buy. Let’s think about ways that smart shoppers find the best price for the things they want to buy. Can you name one way to find a good price? Allow students to volunteer ideas, and list them on the board under the “Smart Shoppers” heading. Prompt students if necessary to get them to list the following methods:

- **Comparison Shop** (check the prices at several different stores)
- **Look for Sales** (check newspaper or TV ads, or signs in store windows to see which stores are having sales)
- **Use Coupons**

Let’s take a look at all three of these methods for smart shopping. Which of them do you think would take the most time?

It would take longer to go to several different stores looking for the cheapest prices.

What might be a problem with using advertisements in newspapers or television?
You might not want the items that are on sale that week. There might not be a sale for the things you do want to buy.

If necessary, explain that the word “comparison” means to decide how two things are alike and how they are different.
A lot of people use coupons to save money when they shop. What is a coupon?

A coupon is a small form or ticket that can be turned in at a store to buy an item for a cheaper price.

When you use a coupon, you are getting items at a discount. That means the price has been lowered. Write the word “discount” under the entry “Use Coupons.” Let’s take a closer look at coupons.

Using Coupons

There are two different types of coupons: store coupons and manufacturers’ coupons. A store coupon is the kind of coupon you see in newspaper flyers, like this one. Hold up a newspaper flyer and point to the printed coupons.

These are coupons that will only be good at the store that printed the flyer. If you want to get this discount for this item, you have to use it at this store. Point out and read the store name from the flyer. To use these coupons, you cut them out and hand them to the cashier at the grocery store when you are paying for your items.

Store coupons are usually only good for about a week. If you wait too long, the coupon expires. That means you can’t use the coupon after a certain date—the expiration date. Write the words “expiration date” on the board, and point out and read the expiration date for the coupons on the flyer you’re showing students.

The other type of coupon is a manufacturer’s coupon. As you know, grocery stores don’t make most of the items they sell. Somebody else makes them, then delivers them to the stores in big semi trucks. The people who make these items are called manufacturers. Write the word “manufacturers” on the board.

To manufacture something means to make it. The manufacturers may decide to print and pass out their own coupons for their products.

For example, let’s say that the Acme Cereal Company sells six different kinds of breakfast cereal. They decide to make a coupon for one of them, to see if they can get people to buy more of it. They print coupons that look like this. Hold up one or two manufacturer’s coupons, walking around the room so everyone can see them.

How does this coupon look different than the store coupons? Accept students’ suggestions. They may point out that the coupon doesn’t have to be cut out, or that it’s made of a different kind of paper instead of newsprint.

There are a couple of other ways a manufacturer’s coupon is different than a store coupon. For one thing, this coupon can be used anywhere this item is sold. You don’t have to go to a particular store to turn it in.

That’s because it isn’t the store giving you the discount; it’s the manufacturer. When you’ve turned this coupon in to a store, the store manager will then send it to the manufacturer and get the money back for it. Read the discount amount on one of the coupons as an exam-
ple of how much the store receives for turning in the coupon. You might also read the fine print on the coupon, which sometimes includes a promise from the manufacturer to pay the store an additional amount for accepting the coupon.

The other way this coupon is different than a store coupon is the expiration date. This coupon is good for a longer time. Remember, a store coupon usually expires after about a week. Manufacturers’ coupons won’t expire for several months; in fact, some of them never expire. Point out and read the expiration date, if any, on the manufacturers’ coupons you have. Pass the examples of coupons around the room for students to look at more closely.

4. Introduce the large-group activity: The Parts of a Coupon worksheet.

○ Before you can use coupons to save money, you need to understand how to read them. We’ve talked about the expiration dates of coupons, but coupons contain other kinds of information and instructions for shoppers, and sometimes you have to look carefully to tell if the coupon will really save you money.

I’m going to pass out a worksheet that shows three different coupons. There are questions for you to answer after you’ve studied them. Notice that Number Five asks you to create your own coupon on the back. Make sure you follow the directions carefully to create this coupon.

Also, here’s a bonus question: Two of the coupons contain a special symbol called a UPC Code. It looks like a row of thin and thick lines. On the back of the paper, under your coupon, write what you think UPC Codes are used for.

Allow students to work on The Parts of a Coupon worksheets while you work with individual groups in the following small-group activity. After small-group work, you might want to go over the worksheet to make sure everyone understands how to read the information on coupons.

Small-Group Activity: The 15-Second Shopping Spree

Concept Taught
Calculators: Keeping Ongoing Subtotals

Materials
- Book: Pigs Go to Market: Fun with Math and Shopping
- Chalkboard or chart paper
- Calculators (one for each student in small groups)
- One die
- Timer (or a watch or clock with a second hand)
- Paper and pencil for each student
- Optional: Candy to pass out at the end of the activity

Say:

Mrs. Pig won a five-minute shopping spree. For five minutes, she got to race around the grocery store and throw anything she wanted into her shopping cart. At the end of five minutes, everything in the cart was hers to keep.

Let’s try a shopping spree of our own. We don’t have a grocery store we can race around, but we do have a picture of one aisle in the store Mrs. Pig shopped at.

Show students pages 13 and 14 in Pigs Go to Market: Fun with Math and Shopping. (This page shows a picture of the candy aisle at the supermarket.)

These two pages show all the Halloween candy that is available at the supermarket. There are lots of different candies of all prices in this aisle.

When stores use shopping sprees as prizes, they count on the fact that it takes time to run up and down all the aisles. They also know that a grocery cart only holds a certain number of items. That way, they can control how many items the winner actually takes. They don’t want the winner to get too much stuff!

In our shopping spree, we can’t slow you down by making you push a shopping cart around a store, so we’ll limit your shopping spree to a certain number of items by having you roll one die. And instead of giving you five minutes (that’s a long time, when all you have to do is stare at a picture!), we’ll make our shopping spree last 15 seconds.

Pass out paper and a pencil to each student. Select one student to roll the die, and substitute that number in the blanks of the following instructions.

NOTE: If a “1” or a “2” is rolled, have the student roll again.

When I say “Go,” each of you will select and write down ___ types of candy from these two pages. When I say “Stop,” your time is up, so try to pick out the candies and write them quickly. Make sure all students in the group are able to see the picture equally well. Begin timing students as soon as you say “Go,” and call “Stop” when 15 seconds are up.

2. Determine the value of the candy selected during the shopping spree.

Say:

Now let’s see how you did during your shopping spree. Did each of you have time to select and write down ___ items? Was it easy or hard to do? Allow students to share their opinions.

Each of you selected different candies during your shopping sprees. How can we tell who got the best prize? Accept any answers. Some students might want to argue the merits of the different candies selected, but since these are all imaginary candies, they can’t judge them on taste. Someone should suggest adding the prices of each item of candy selected to discover the monetary worth of the candy.

Let’s say for this activity that the best prize is the one that would cost the most money to buy. To do that, we first have to figure out
the value of each of the candies selected, and then add the values together for the total amount. The value is how much money the candy is worth—in other words, what it would cost if you had to buy it.

On your paper next to each type of candy, write down the cost that you see here in the book. Reopen the book to pages 13 and 14, and give students time to find and write down the amount of each candy they selected.

NOTE: For the next part of the activity, students will need to enter the money amounts into a calculator, using decimal points. For any money amount written in the book with a cents sign, help students to rewrite the amount using decimals (e.g., 97¢ = .97).

Demonstrate how to use a calculator to add money amounts with decimal places.

Now we’re going to use calculators to add the amounts. Many people take calculators with them when they shop, and add up the amounts of each item as it is selected. They don’t turn the calculator off—they keep adding every new thing they select to the total until they’ve finished shopping.

How can a calculator help shoppers—why do you think people would use a calculator at a store? Allow students to speculate. They should suggest that calculators help keep track of how much money is being spent, so they don’t spend more than they intend.

Let’s use a calculator together to add up some candies. Let’s say we bought some Large Witches Brooms, one Pound o’ Pumpkins, and some Ghouly Drops during our shopping trip. Write the three items and their prices on the chalkboard or chart paper:

- Large Witches Brooms—$1.33
- Pound o’ Pumpkins—$2.59
- Ghouly Drops—97¢ (written as $0.97)

When you enter money into a calculator, you don’t worry about dollar or cents signs, but you do have to be sure to enter a decimal point. Show students the decimal-point key on the calculator. What does the decimal point stand for in money?

It separates dollars and cents.

Enter the addition problem into your calculator slowly, naming each number or function key aloud as you enter it. Make sure all students in the group can see you: 1.33 + 2.59 + 0.97 = $4.89. This group of candy items is worth 4 dollars and 89 cents.

Pass out calculators, and have the students duplicate the problem above. When you are satisfied that all students can use the calculator, have them add the candy items they selected during their shopping sprees.

If time permits, allow students to have another “15-Second Shopping Spree,” using what they just learned to select items that will increase the value of their prize.

You might want to end the session by passing out “fun” candies, similar to the Halloween/monster themed candy of the book.
Assessment

Check students’ understanding by listening carefully to the responses they give during group discussions and while playing the 15-Second Shopping Spree game. Go over the answers to the Parts of a Coupon worksheet from the large-group activity, and allow students to discuss their guesses to the bonus question (What are UPC codes used for?).

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.

Dollars and Sense for Kids

Sponsored by BankSITE®, the Web site for a consortium of banks around the United States, this collection of activities introduces Dollar the Dragon, who provides children with money and banking trivia, an online savings calculator, Kid-Friendly Internet links, and several jokes and riddles—all designed to help children learn more about money and banking. Follow this link and select “Kids Corner” from the links on the left of the screen (NOTE: This activity appears in a separate pop-up window): www.banksite.com/index2.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 Grade 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 8: Role of Price in Market System

Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives.

K–4 Grade Benchmarks:

• High prices for a good or service provide incentives for buyers to purchase less of that good or service, and for producers to make or sell more of it. Lower prices for a good or service provide incentives for buyers to purchase more of that good or service, and for producers to make or sell less of it.
Standard 11: Role of Money

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

K–4 Grade Benchmarks:
- Money is anything widely accepted as final payment for goods and services.

5–8 Grade Benchmarks:
- As a unit of account, money is used to compare the market value of different 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.

3-5 Grade Benchmarks:
- develop fluency in adding, subtracting, multiplying, and dividing whole numbers

Language Arts

This lesson, based on the children’s book Pigs Go to Market: Fun with Math and Shopping, by Amy Axelrod, 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).
The Parts of a Coupon

Name ________________

Study the three coupons and answer the questions at the bottom of the page.

1. Which coupon doesn’t expire? Dog Food  Ham  Facial Tissues
2. Which coupon limits your choice? Dog Food  Ham  Facial Tissues
3. Which coupon requires you to buy something else before using it? Dog Food  Ham  Facial Tissues
4. Which coupon expires first? Dog Food  Ham  Facial Tissues

5. Draw and color a coupon for ice cream on the back, which expires this month, saves shoppers 75¢, and requires them to buy something else first.