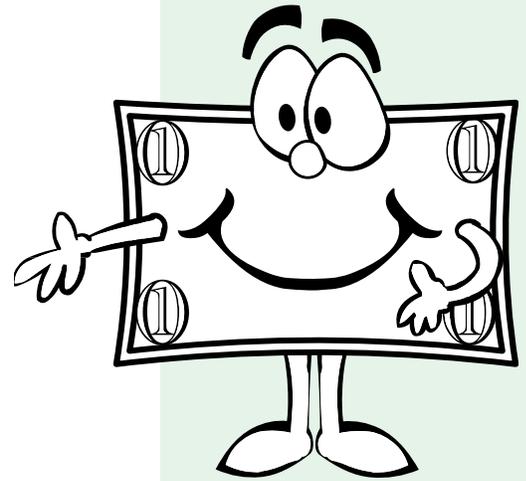


Counting Change and Changing Coins



Overview

Students share the book *The Penny Pot*, by Stuart J. Murphy, to learn about choices, producers and consumers, and counting money.

Prerequisite Skills

Recognize and know the value of pennies, nickels, dimes, and quarters.

Lesson Objectives

Students will be able to:

- Understand that when a choice is made something is given up
- Define the terms *consumer* and *producer*
- Understand that people can be both producers and consumers
- Count various groups of mixed coins by sorting and skip counting

Materials List

1. Book: **The Penny Pot**, by Stuart J. Murphy (Harper Collins MathStart, 1998)
2. A pad of Post It® or other type of self-adhesive notepaper, any size
3. Play money: pennies, nickels, dimes, and quarters
4. Crayons
5. Handouts:
 - **I'm a Producer *and* a Consumer!** worksheet
 - **Count Up, Count On** 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

choice
consumer
price
producer
worth

Large-Group Activity

Materials

- Book: *The Penny Pot*
- Chart paper or chalkboard
- Crayons
- Handout: **I'm a Producer and a Consumer!** worksheet

1. Gather students to share the book *The Penny Pot*.

- Say:

Have you ever had your face painted at a fair or carnival? What did you have painted on your face? Allow students to share their experiences.

Today we're going to be reading a story about a girl named Jessie who really wants her face painted, but she doesn't have quite enough money. It's called *The Penny Pot*, and it was written by Stuart J. Murphy. This book is part of a series called MathStart books. All of the books in the series are written by Stuart J. Murphy, and they're all about kids using math in real life. This one talks about counting coins and waiting until you have enough money before buying something.

Let's find out how Jessie gets enough money to get her face painted.

- 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.

- **How much did it cost to get a face painting at the school fair?**

It cost 50 cents.

- **How much money did Jessie have when she got to the face painting booth?**

Jessie only had 39 cents.

- **What was the "penny pot?"**

It was a bowl that Fran the art teacher kept in the booth. People put extra pennies in the pot after their faces were painted.

- **What was the penny pot used for?**

The extra money was given to kids who didn't have 50 cents to get their faces painted.

3. Discuss today's economic concepts: choice and producers and consumers.

- **Choice**

Jessie only had 39 cents, but the face-painting booth charged 50 cents. Why didn't Jessie have enough money?

Jessie had bought an ice cream cone before she came to the face-painting booth.

Jessie didn't have enough money to buy both the ice cream cone and the face painting. When you go somewhere like a fair or a carnival, there are lots of places to spend your money. Nobody has enough money to buy everything they want, so people have to learn to make choices. A **choice** is a decision you have to make between two or more things you want, if you don't have enough money for all of them. Write the word "choice" on the chalkboard or chart paper.

If Jessie had known that face painting cost 50 cents, do you think she would still have bought the ice cream cone? Why (or why not)? Encourage students to give reasons for their opinions.

Let's say that Jessie had 50 cents when she came to the fair. Write "50¢" on the chalkboard or chart paper. **We know the face painting cost 50 cents. If she bought an ice cream cone for 11 cents, Jessie wouldn't have 50 cents for face painting.** Write "11¢" under the "50¢" and subtract to show that Jessie had 39¢ left.

Jessie needed to find 11 cents somewhere if she was going to get her face painted, so she had to wait for other children to put that much money into the penny pot.

○ *Producers and Consumers*

Write the words "producers" and "consumers" on the board. Say:

These two words are used to describe people who exchange money for goods or services. A **producer** is someone who makes or sells a good or a service. Fran the art teacher was a producer in our story. Fran sold a service—she did something that people paid her for. What service did she sell?

Fran painted faces, which is a service. Write "sells face painting" under the word "producer" on the board.

Jessie had gone to another producer at the fair before she came to the face-painting booth. What did that producer sell? Was it a good or a service?

Jessie visited the ice cream booth. Ice cream is a good. Write, "sells ice cream" under "producer" on the board.

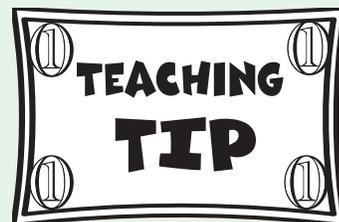
Jessie wasn't a producer in this story; she was a consumer. A consumer is someone who buys goods or services from someone else. When did Jessie act as a consumer in the story?

Jessie was a consumer at the ice cream booth and at the face-painting booth. Write, "buys face painting" and "buys ice cream" under the word "consumer" on the board.

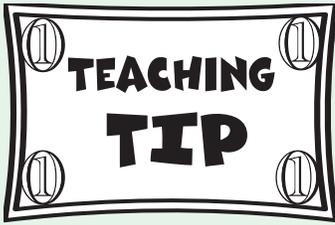
What word did I use in both examples of producers? "Sells." What word did I use in both examples of the consumers? "Buys." Circle the four examples of the words "sells" and "buys."

Everybody is a consumer sometimes. Can you give me an example of a time when you were a consumer? Allow students to share experiences of buying with the class.

Everybody is also a producer sometimes. Give me an example of a time when you were a producer. Allow students to share their experi-



Depending on their prior experience, you may need to provide more examples of goods and services for second-grade students.



This lesson describes producers and consumers in the fiscal sense only, with the exchange of money as the common factor.

ences. Students may have trouble describing instances when they produce. Ask if anyone does chores for an allowance.

Even though Fran was the producer in this story, she can be a consumer, too. What is something Fran might do at the school fair that would make her a consumer? Allow students to be creative in their responses as long as they describe a buying example. They may suggest that Fran might buy an ice cream cone, too.

4. Introduce the large-group independent activity—**I’m a Producer and a Consumer!** worksheet.
 - **Now you’re going to get a chance to show how you can be a producer and a consumer. On this worksheet you can see a drawing of a circus tent. Pretend you work at the circus.**

In the top box, draw a picture of something you might do at the circus. You might be a producer of goods—you might sell something at a booth. Or you might be a producer of a service—you might do something that people will pay to see.

In the bottom box, draw a picture of yourself as a consumer at the circus. Show yourself buying something or paying to see someone do something at the circus. Be sure to color your picture.

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

Small-Group Activity One: Mixed Coin Counting

Concepts Taught

Coin Identification and Mixed Skip Counting

Materials

- Book: *The Penny Pot*
- Chart paper or chalkboard
- Play money: pennies, nickels, dimes, and quarters
- A pad of Post It® or other type of self-adhesive notepaper, any size
- Handout: **Count Up, Count On** worksheet

1. Prepare for the activity ahead of time.
 - Using sticky notes, mask the numbers showing skip counting in the book *The Penny Pot* (found on pages 7, 11, 15, 19, and 23—don’t mask the amounts on page 27). Students should still be able to see the coins but not the numbers beneath.

In addition, use a sticky note to hide any totals that are given on the page (e.g., on page 7 the total 39 cents is visible in the text at the bottom of the page).

2. Practice skip counting in *The Penny Pot*.

- **Let's practice counting with Jessie and her friends in the book.** Turn to page 7 in the book. The numbers below the coins on the page should be masked with sticky notes.

There are a couple different ways to count coins. The type of counting we're going to practice today is to sort the coins and then skip count beginning with the coins that are worth the most money.

This page shows the coins already sorted. Look at how these coins are lined up on this page. What coin do you see first?

Dimes.

What coins are next?

After the dimes are nickels and then pennies.

Lay out play money dimes, nickels, and pennies in the same amounts as seen on page 7. **Always start with the coins that are worth the most – in this case, the dimes. What are dimes worth?**

Ten cents.

So we begin counting by tens. Count with me. Touch each dime as you count with the group: “10, 20, 30.”

- If students try to say “forty” when you point to the nickel, stop the count and say:

Oops, I caught you! This isn't a dime, is it? What is a nickel worth?

A nickel is worth five cents.

So, we have to change our counting when we get to the nickels. Remember, we left off at 30 with the dimes, then we skip to the next five. Count with me. Touch the nickel as you count with the group: “30, 35.”

- If students try to say “forty” when you point to the first penny, stop the count and say:

Oops, I caught you again, didn't I? This isn't a nickel, it's a . . .

. . . penny.

What is a penny worth?

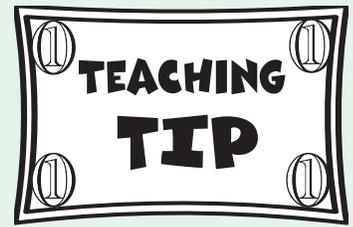
A penny is worth one cent.

So, we have to change our counting again when we get to the pennies. Remember, we left off at 35 with the nickel, then we skip to the next one. What comes after 35 when you're counting by ones?

Thirty-six is next.

Count with me. Touch the pennies as you count with the group: “35, 36, 37, 38, 39.”

Peel off the sticky notes to show students the printed skip counting, and have them recite the counting again as you point to each pictured coin.



If asked, you might want to mention other counting methods (such as grouping), but don't demonstrate them at this time.

Continue this procedure for several more of the examples from the book, depending on available time and whether or not the students need more practice in mixed skip counting.

3. Practice skip counting up to a target amount.

- **When Jessie received money from the penny pot, she had to skip count money in another way. She started with the amount she already owned, and then counted on until she got to 50 cents.** Turn to page 27 in *The Penny Pot*.

This first pile of money shows the amount Jessie came into the booth with—39 cents.

Point to the other groups as you describe them. **Look at how the pennies from the penny pot have been arranged next: one penny, then two groups of five pennies, then one penny again. Why do you think the money is grouped this way?** Allow students to speculate.

Jessie was trying to count quickly. She had a lot of pennies, and she didn't want to count one penny at a time. So she put the pennies into groups. How many pennies are in these groups?

There are five pennies in each group.

Why do you think she put one penny by itself here? One penny brought her total to 40 cents, which is an even number and easier to skip count on from.

When Jessie counted these next two piles, she could “count on” from 40 just like she would if she was counting nickels. Let's count with Jessie. Point to each pile of coins and count aloud with the students on the page: “39, 40, 45, 50, 51.”

Jessie only needed 50 cents. Did she need to count that last penny?

No, she could stop counting at 50. The extra amount went into the penny pot for the next customer that needed it.

4. Introduce the **Count Up, Count On** worksheet.

- **This worksheet will let you try counting on from an amount until you get to 50 cents.**

Pass out the worksheets and go over the instructions with the students. Allow them to work on the activity independently, providing help when needed. **NOTE: If students seemed to struggle in the group activity, you might have them work together in pairs on the worksheet.**

Additional Small-Group Activities for The Penny Pot

Pages 32 and 33 in *The Penny Pot*, by Stuart J. Murphy, provide suggestions for additional activities that can be used in the classroom as well ideas to share with parents. The activity called “Trading Coins” is especially effective for this lesson.

Assessment

Check students' understanding by listening carefully to the responses they give during group discussions and on the **Count Up, Count On** worksheet. Have students share their drawings from the **I'm a Producer and a Consumer!** worksheet.

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.

Producers and Consumers with Simple Simon

In this Economics Minute flash activity provided by the National Council on Economic Education, a classic rhyme, "Simple Simon Met a Pie-Man," introduces students to the concepts of consumer and producer. Share the rhyme with students and then have them identify the producer and the consumer in the rhyme. Found at: www.econedlink.org/lessons/em464/em464_popupActivity.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 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 Benchmarks:

- Economic wants are desires that can be satisfied by consuming a good, service, or leisure activity.
- Whenever a choice is made, something is given up.
- People whose wants are satisfied by using goods and services are called consumers.
- People who make goods and provide services are called producers.

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.

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 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

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

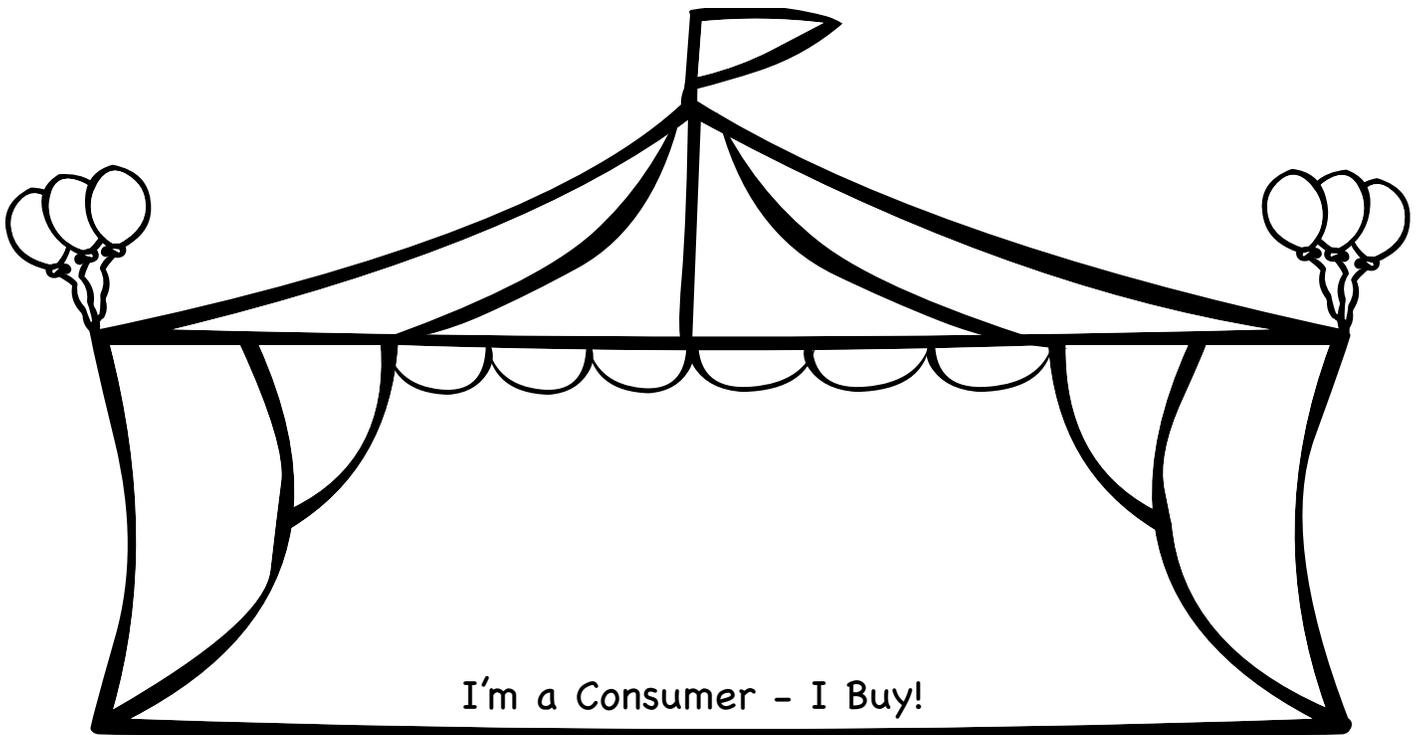
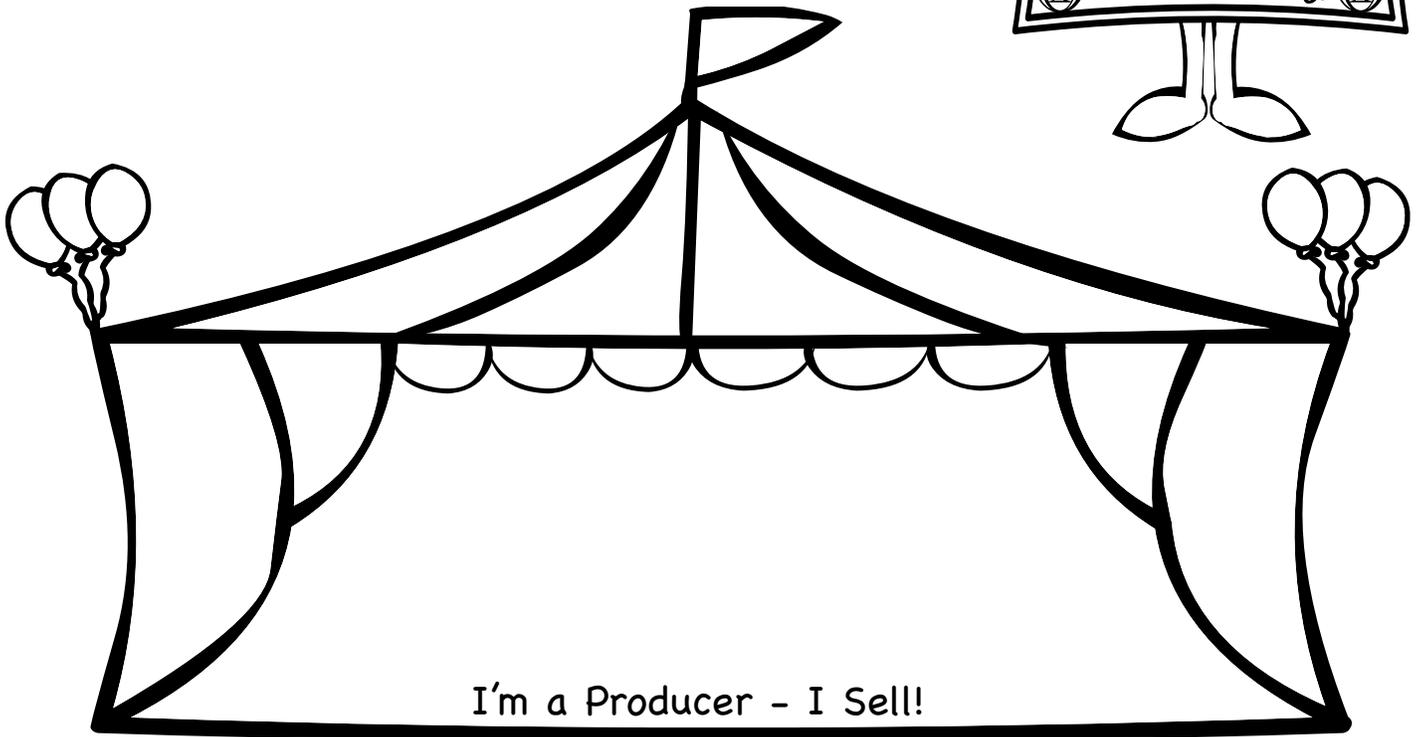
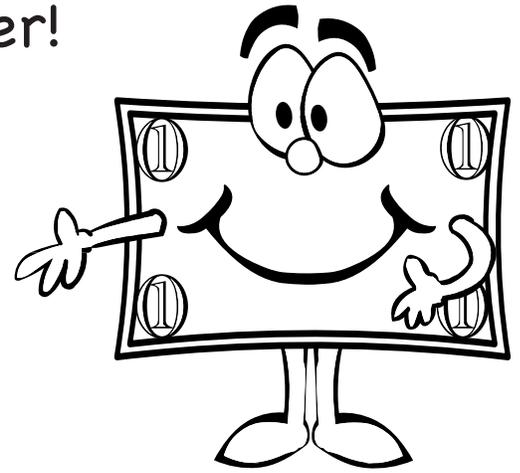
This lesson, based on the children’s book *The Penny Pot*, by Stuart J. Murphy, also correlates to the following *Standards for the English Language Arts*, from the National Council of Teachers of English, found at:

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).

I'm a Producer and a Consumer!

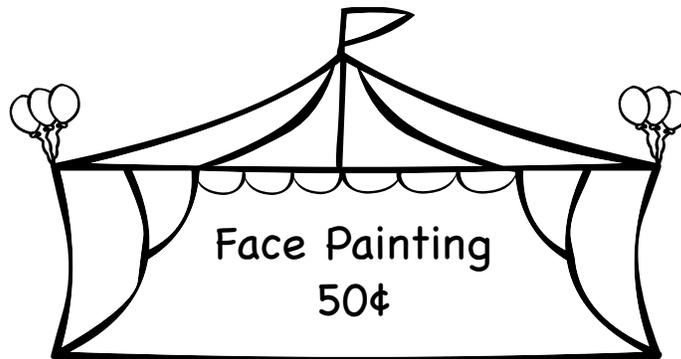
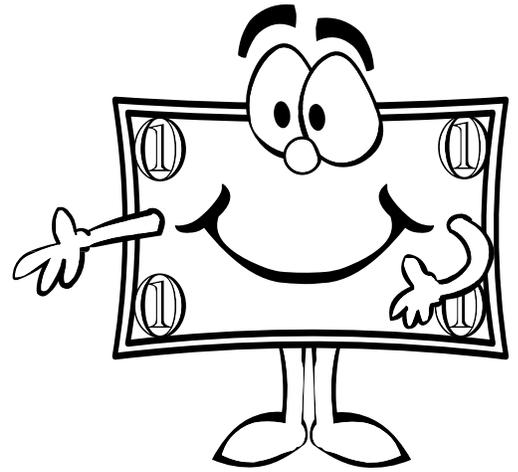
Name _____



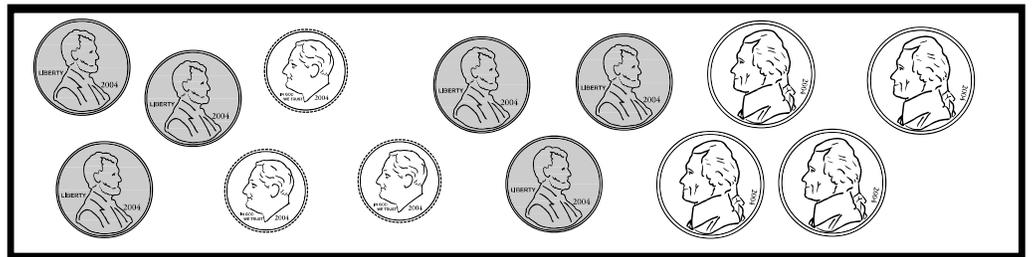
Count Up, Count On

Name _____

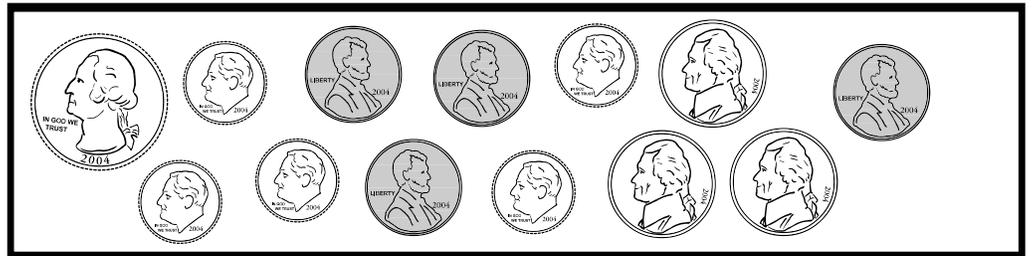
Circle the coins that you need to help you pay for your face painting.



1.



2.



3.

