



The Coin Counting Book

by Rosanne Lanczak Williams

What coins add up to a quarter? How many pennies in a nickel?
And what can we do with our coins once we add them up?

Comparing Foreign Currency

1. Use www.insideeurope.com/html/euro_common.html (for euro coins), www.insideeurope.com/html/euro.html (for euro bills), and www.japanorama.com/money.html (for Japanese yen).
2. Either print out pictures or show your students what the denominations are. The American penny is about equal to one Japanese yen and one euro cent. (Therefore, 100 yen= 1 American dollar.)
3. Instruct students to make a chart like the one shown below in order to compare three types of currencies — American, European, and Japanese.
4. Ask students to describe the differences they notice between the currencies of different countries. (For example, the one and two euro dollars and the 100 and 500 yen come in coin form.)

Different Denominations of Currency

American	European Union	Japanese
Coins	Coins	Coins
1¢	1 cent	¥1
5¢	2 cents	¥5
10¢	5 cents	¥10
25¢	10 cents	¥50
	20 cents	¥100
	50 cents	¥500
	€ 1	
	€ 2	
American	European Union	Japanese
Bills	Bills	Bills
\$1	€ 5	¥1000
\$5	€ 10	¥5000
\$10	€ 20	¥10000
\$20	€ 50	
\$50	€ 100	
\$100	€ 200	
	€ 500	

Jeopardy Sums

1. Give each group of four students the same grouping of coins such as 2 quarters 5 dimes, 10 nickels, and 15 pennies.
2. Ask students to find and write down all the different combinations that add up to 25 or 50 cents.
3. Play a variation of the Jeopardy game in which you write the answer on the board, and the students have to come up with the question. For example, if you write \$0.30 (or 30¢) on the board, the groups try to be the first to come up with a question such as “How much is a quarter and a nickel?”
4. When a group has the question, they stand. The first group with a correct question wins a point.
5. Continue up to a ten point final winner.

Penny Parade-A Game of Strategy

1. Pass out 15 pennies to each pair of students.
2. Ask students to line them up in a row.
3. Have students take turns removing 1, 2 or 3 pennies at a time. The player who removes the last penny or group of pennies wins. Each player tries to develop a strategy for winning.

Coin Probability:

1. Divide the class into small groups of 4 or 5 students.
2. Give each group a bag with 5 nickels, 5 dimes, and 10 pennies.
3. Make charts like the ones below and photocopy them for the students.
4. Record the results of their draws to see how probability can be useful at times when you need to make a prediction. (Out of ten draws from the bag, pennies are twice as likely to be picked than either nickels or dimes.)

number of draw	coin drawn
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

kind of coin	expected number of times drawn	expected probability of being drawn	actual number of times drawn
penny	10	1 out of 2 draws	
nickel	5	1 out of 4 draws	
dime	5	1 out of 4 draws	

5. Where else can probability help you figure out how often something might happen? You might guide the class towards a discussion of weather prediction ("a 70% chance of rain") or population statistics ("one out of every four Americans is a child").

Budget Your Money

1. Pass out grocery circulars, catalogs, and/or menus to students.
2. Set a budget of \$1.00, \$5.00, \$10.00, etc. for students.
3. Students create a list of items (including prices) that they would like to buy. They must stay within the set budget. This is great practice for using calculators.

Mints Aren't Always Candy

1. Explain that another meaning for the word mint is a place that makes money. There are three United States mints that currently produce coins we use when buying and selling. The letters P, D, and S stand for the Philadelphia, Denver and San Francisco mints.
2. Give students a random mix of coins from each mint.
3. Ask them to arrange the coins in order from oldest to newest by looking at the date.
4. On the board write subtraction questions such as the following:
 - Where was the newest coin in your group made?
 - Where was the oldest coin in your group made?
 - How many years older is the oldest from the newest?
 - How many years are there between the oldest coin from the Philadelphia mint and the newest coin from the same mint?
 - How many years has it been since the oldest coin was made?
 - How many years has it been since the newest coin was made?

Variation #1: If you do not have state quarters in the classroom, you can go to the site:

www.usmint.gov/mint_programs/index.cfm?action=50_state_quarters_program and print out some of the quarters for the students to use with the following subtraction problems:

- Subtract the date that one state joined the Union from the current year.
- Subtract the minting date from the current year.
- Subtract the date that one state joined the Union from the date the coin was minted. (For example, $1999 - 1788 = 211$ because Connecticut's quarter was minted in 1999, which is 211 years after it joined the union in 1788.)

Variation #2: A geographic extension of this activity might involve asking students to use a map of the U.S. to find the state for each quarter.